

Intersection Improvements Upper Manhattan Pedestrian Project



City of New York
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Upper Manhattan Pedestrian Project



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Introduction

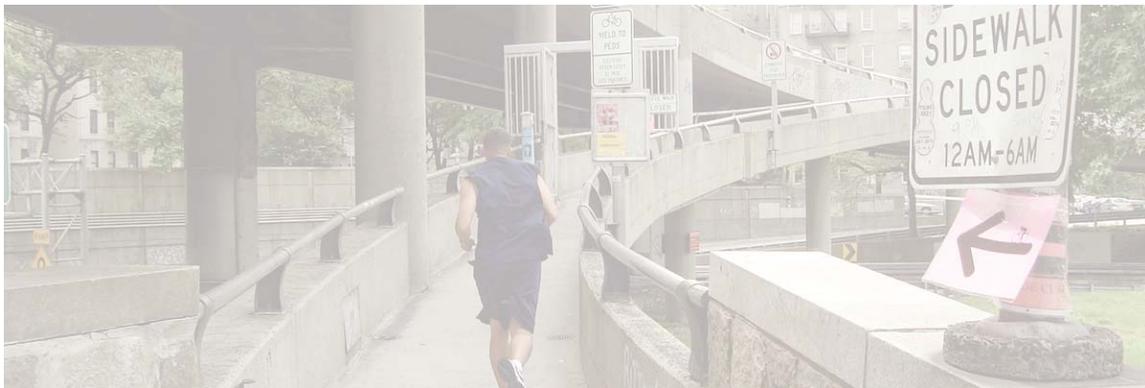
Project Description

The Upper Manhattan Pedestrian Project presents the findings from the study of intersections around Ft. Washington Avenue and the George Washington Bridge in the Washington Heights area of the city. This report recommends a number of physical and operational improvements in order to improve pedestrian safety, mobility and access as well as bicycle and vehicle operations. These improvements include new signage, street markings, street lighting, sidewalk extensions, traffic calming measures, standardization of intersections, median extensions, and installation of greenway and bicycle facilities.

The Department of City Planning's (DCP) Transportation Division completed this planning document as part of a larger Congestion Mitigation Air Quality (CMAQ) funded pedestrian study called Intersection Improvements. The other study is the Gansevoort/Highline Pedestrian Project which was completed in late 2007. This report, Upper Manhattan Pedestrian Project, focuses on improving pedestrian facilities and enhancing pedestrian safety in the Washington Heights neighborhood around Ft. Washington Avenue, the George Washington Bridge and the George Washington Bridge Bus Station.

Intersection Improvements seeks to recommend and implement physical and operational improvements in order to enhance pedestrian safety; provide better pedestrian access to subways, local bus routes, and the bus depot; strengthen pedestrian connections to major destinations/employers and new office and retail development in urban renewal areas and empowerment zones; improve links to historic districts, landmarks, and cultural destinations; improve connections to river crossings; and improve ease of access to the waterfront and open spaces.

This report, in addition to many others, can be found on the DCP website at www.nyc.gov/html/dcp/html/transportation/main.shtml.



Site Selection

This CMAQ-funded project focuses on improving pedestrian routes and facilities in Upper Manhattan with a study area north of West 155th Street encompassing the entirety of Community Board 12. Initially, DCP looked at a variety of possible locations to be studied which included the following criteria: sites with substandard or deteriorating conditions; links to the waterfront, open spaces and greenways; high accident nodes; access to subways and local bus stops; connections to major destinations; connections to employment and retail destinations; links to historic districts, landmarks, and cultural centers; connections to bridge crossings; pedestrian, vehicular and bicycle routes; and major east-west and north-south corridors.

DCP reviewed projects in the area that are currently being studied for transportation improvements or are slated to be studied so as not to duplicate services. This list includes the following: Sherman Creek zoning and transportation study; St. Spyridon Parochial School safety report; the reconstruction of St. Nicolas Avenue from 170th Street to 193rd Street; reconstruction of Broadway from 125th Street to 178th Street; reconstruction of step streets; Highbridge over the Harlem River; reconstruction of Tenth Avenue from W. 206th Street to W. 218th Street; the 181st Transportation Study; Fort Washington Park improvements and renovations including pedestrian and bicycle pathways; and the George Washington Bridge Bus Station redevelopment.

After reviewing a list of possible locations with the New York City Department of Transportation (DOT), the Ft. Washington Avenue corridor around the George Washington Bridge was selected. The criteria used to choose these intersections were: pedestrian accidents, traffic congestion, bridge access, green/open space and the overall opportunity to improve the sites. After mapping some initial site locations, the study identified one target area for pedestrian improvements: the area around the George Washington Bridge. The study area for this report is the corridor of Ft. Washington Avenue from West 177th Street to West 181st Street; and Cabrini Boulevard from West 177th Street to West 178th Street including the connection to George Washington Bridge pedestrian pathway.

The intersections studied are: the three signalized intersections at Ft. Washington and West 181st Street, Ft. Washington and West 179th Street, and Ft. Washington and West 178th Street; two unsignalized intersections at Cabrini Boulevard and West 178th Street and Cabrini Boulevard and West 177th Street; and some of the roads connecting and between the intersections.

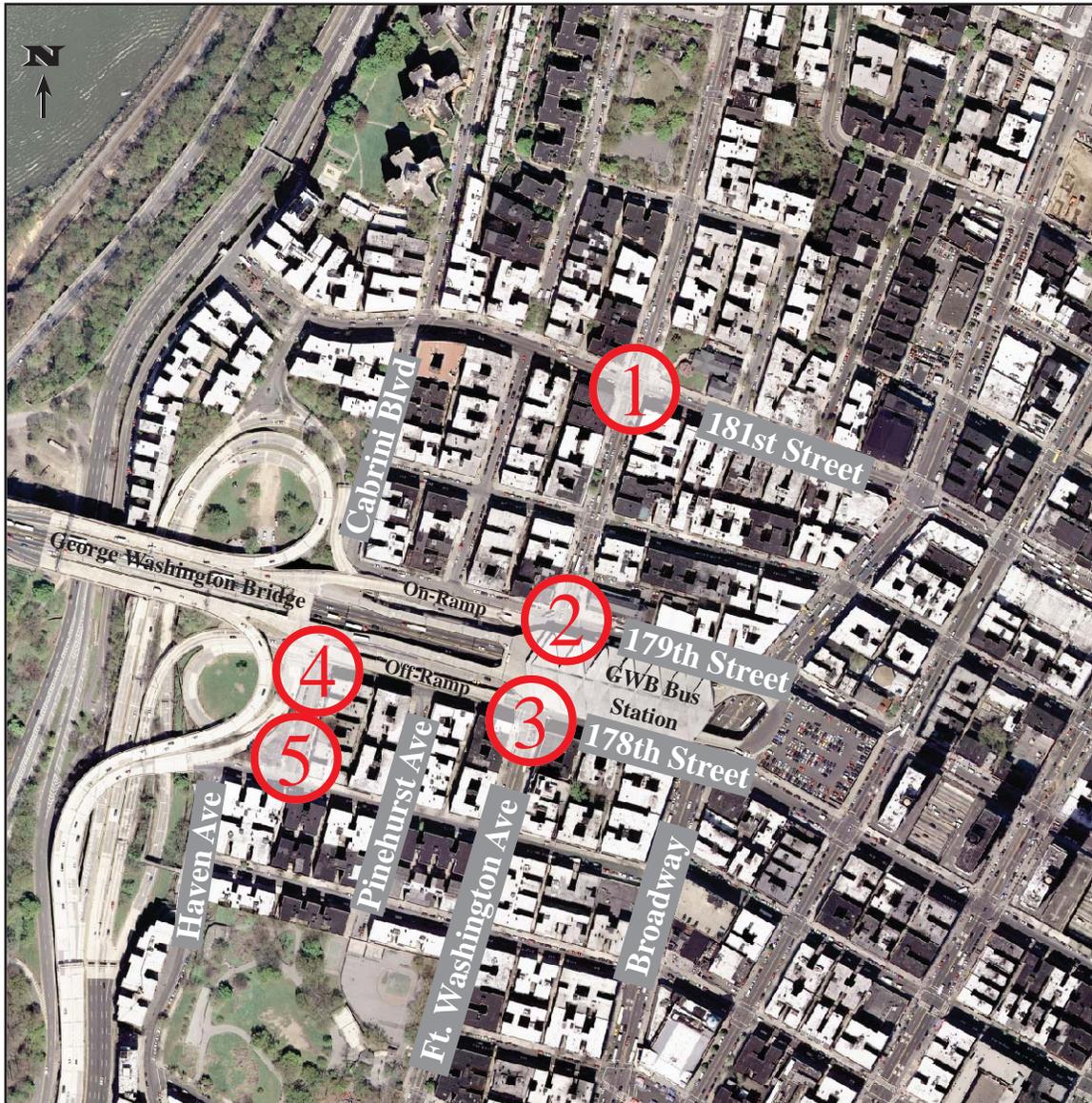


Photo 1 - Aerial photo of the intersections examined in this report.

The five intersections studied are:

1. Ft. Washington and West 181st Street (signalized)
2. Ft. Washington and West 179th Street (signalized)
3. Ft. Washington and West 178th Street (signalized)
4. Cabrini Boulevard and West 178th Street (unsignalized)
5. Cabrini Boulevard and West 177th Street (unsignalized)

Neighborhood Description

The intersections studied in this report are located in Community Board #12 of Manhattan. Community Board #12 includes the neighborhoods of Washington Heights, Inwood, Fort George, and Sherman Creek. The area is bounded by the Harlem River to the north and east, the Hudson River to the west and West 155th Street at the southern end; encompassing 2.9 square miles or 1,887 acres. The population of Community Board #12 is 208,414 with 74% of Hispanic Origin, 14% White Nonhispanic, and 8% Black Nonhispanic (2000 Census). The total population has risen 10% from 1980 to 1990 and 5% from 1990 to 2000. Income support levels are at 46% (96,179 people) while the borough of Manhattan is at 25% and New York City is 32%. Of the 46% receiving income support, 67,106 people are receiving only Medicaid, 17,943 are receiving Supplemental Security Income, and 11,130 are on Public Assistance. The land use in Manhattan Community Board #12 (Map #1) is dominated by parks and open space (49.9% at 30,024 ft²) as compared to New York City (25.1%) and the borough of Manhattan (25.1%). This can be attributed to Inwood Hill Park, Fort Tryon Park, Fort Washington Park, Highbridge Park, Riverside Park, and Jay Hood Wright Park and other smaller sites. Multi-family residential is the next predominant land use covering 20.3% of the area (12,213 ft²) followed by Mixed Residential and Commercial with 9.1% (5,443 ft²). The land use is rounded out by Institutions (8.5%), Commercial/Office (3.0%), Transportation/Utility (2.7%), Parking Facilities (2.3%), Vacant Land (2.0%), Miscellaneous (1.4%), 1-2 Family Residential (0.5%), and Industrial (0.3%). There are 70,576 total households with family households at 65% and nonfamily households at 35%. There are 3.52 persons per family and 2.90 persons per household. Of the total households, 94% are renter occupied.

Transportation Network

The study area for this report, along the western edge of Community Board #12, is the corridor of Ft. Washington Avenue from West 177th Street to West 181st Street; and Cabrini Boulevard from West 177th Street to West 178th Street including the connection to George Washington Bridge pedestrian pathway. The transportation network in the study area is dominated by the nexus between local trips, commuters, the George Washington Bridge Bus Station and drivers using the George Washington Bridge and its various on- and off-ramps and connections to the Washington Bridge, the Alexander Hamilton Bridge, U.S. Highway 9, the Henry Hudson Parkway, and the Harlem River Drive.

Bus

The Bx11, Bx13, and Bx36 buses travel back and forth across the Harlem River on the Washington Bridge at West 181st Street. These three buses loop around the George Washington Bridge Bus Station traveling west on West 179th Street, turning south on Ft. Washington Avenue and then turning eastbound onto West 178th Street. These

Map 1



buses have a layover area on West 179th Street between Ft. Washington Avenue and Broadway. These buses often platoon at the intersection of Ft. Washington Avenue and West 178th Street traveling southbound as they wait to make the left turn (eastbound) onto West 178th Street. The M4 bus runs the length of Ft. Washington from West 159th Street up to the Fort Tryon Park and the Cloisters. The M98 Limited also runs along Ft. Washington Avenue to Midtown making a similar loop around the George Washington Bridge Bus Station along West 179th Street and West 178th Street.

The George Washington Bridge Bus Station opened on January 17, 1963 and is located at 4211 Broadway between West 178th Street and West 179th Street. The three-level bus station offers commuter services (including minibus and jitney) to and from New Jersey and upstate New York, as well as long distance destinations. It has a direct passageway to the A train subway station at West 175th Street. The station, administered by the Port Authority of New York and New Jersey (PANYNJ), is currently undergoing a renovation in order to modernize services and increase retail opportunities. According to the PANYNJ, approximately 17,500 passengers on about 930 buses use the facility on a weekday, and the station handled 5,222,000 passengers on about 309,000 buses in 2006.

Pedestrian

The main entrance to the George Washington Bridge Bus Station is located on Broadway, but there is also activity at the western entrance on Ft. Washington Avenue. Pedestrian activity in the study area has the highest volumes around two locations: West 181st Street and Ft. Washington Avenue; and at the George Washington Bridge Bus Station. The pedestrian volumes are due to the confluence of the A Train stop at West 181st Street and Ft. Washington Avenue and the commercial and retail activities on West 181st Street.

The George Washington Bridge greenway running along the southern side of the bridge is a shared-use path for pedestrians and bicyclists. This off-street, separated pathway is the only pedestrian and bicycle connection between Manhattan and New Jersey. Field observations determined that there are more cyclists than pedestrians using the pathway. PANYNJ had previously closed the south pathway for an indeterminate amount of time and re-opened the north pathway. Currently, the north pathway is closed and the south pathway is open.

Subway

The New York City Transit A Train (8th Avenue Express) has full-time stops at West 175th Street and West 181st Street. The West 175th Street station has an exit on the corners of West 177th Street and Ft. Washington Avenue as well as connections to the George Washington Bridge Bus Station. The West 175th Street station is wheelchair accessible. The West 181st Station has seen a slow but consistent increase in weekday

riderships from 2000 (9,107 riders) to 2006 (9,605 riders) in 2006, a 5% increase. The morning commute from 7am to 10am saw 43% of total riders entering the station. The West 175th Station also showed increases in weekday ridership from 2000 (11,184 riders) to 2006 (12,090 riders) with an increase of 8%.

Bicycle

Ft. Washington Avenue has a Class 2¹ on-street bike lane running from West 160th Street up to the Cloisters with two breaks in the lane from West 165th Street to West 168th Street and from West 176th Street to West 181st Street. There is a southbound Class 2 bike lane on Haven Avenue starting at West 177th Street to West 169th Street. The George Washington Bridge greenway features an off-street, separated pathway that many bicyclists use for commuting and for long-distance rides to connect from the waterfront greenways in Manhattan (Hudson River Greenway Route 9A, East River Esplanade, etc.) to New Jersey (River Road Route, State Route 9W) and other bicycle routes and parks along the Hudson River Valley.

Map 2 - Bicycle and greenway facilities in the study area (NYC Cycling Map).



¹ There are three general classifications for bicycle facilities. Class 1 facilities are off-street paths that are separated from the roadway and delineated by pavement markings and regulatory signage. These facilities are usually shared with other users (runners, walkers, etc.) and often referred to as greenways. Class 2 facilities are on-street, stiped lanes that are designated for bicycles only and delineated by pavement markings and signage. Class 3 facilities are on-street routes that are only accompanied with signs. Recently, bicycle symbols and directional arrows have been added to the roadway on some Class 3 facilities in the city.

Accident Summary

The table below is a summary of accidents along the Ft. Washington Avenue corridor in our study area. The data is from the New York State Department of Motor Vehicles (NYSDMV) from January 1, 2004 through December 31, 2006. The intersections with the most reportable accidents¹ are Ft. Washington Avenue and West 178th Street with twenty-six and Ft. Washington Avenue and West 181st Street with nineteen.

Table 1

Cumulative Three-Year Accident Data 2004-2006				
Ft. Washington Avenue Intersections	Reportable Accidents	Pedestrian Accidents	Bicycle Accidents	Injuries
at 181st Street	19	10	2	23
at 181st/180th Street Midblock	4	0	1	4
at 180th Street	4	1	0	4
at 180th/179th Street Midblock	1	0	0	0
at 179th Street	7	0	2	7
at 178th Street	26	4	3	32
at 178th/177th Street Midblock	1	0	0	0
at 177th Street	11	3	2	11
TOTAL	73	18	10	81

Ft. Washington Avenue and West 181st Street recorded the highest number of pedestrian accidents at ten which accounts for over 50 percent of all reportable accidents at that intersection. Overall all of the locations, pedestrian accidents account for 25 percent of all reportable accidents.

There were no reportable accidents on Cabrini Boulevard from West 177th Street and West 178th Street.

¹ 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. Pedestrian and bicycle accidents are reportable by their very nature.

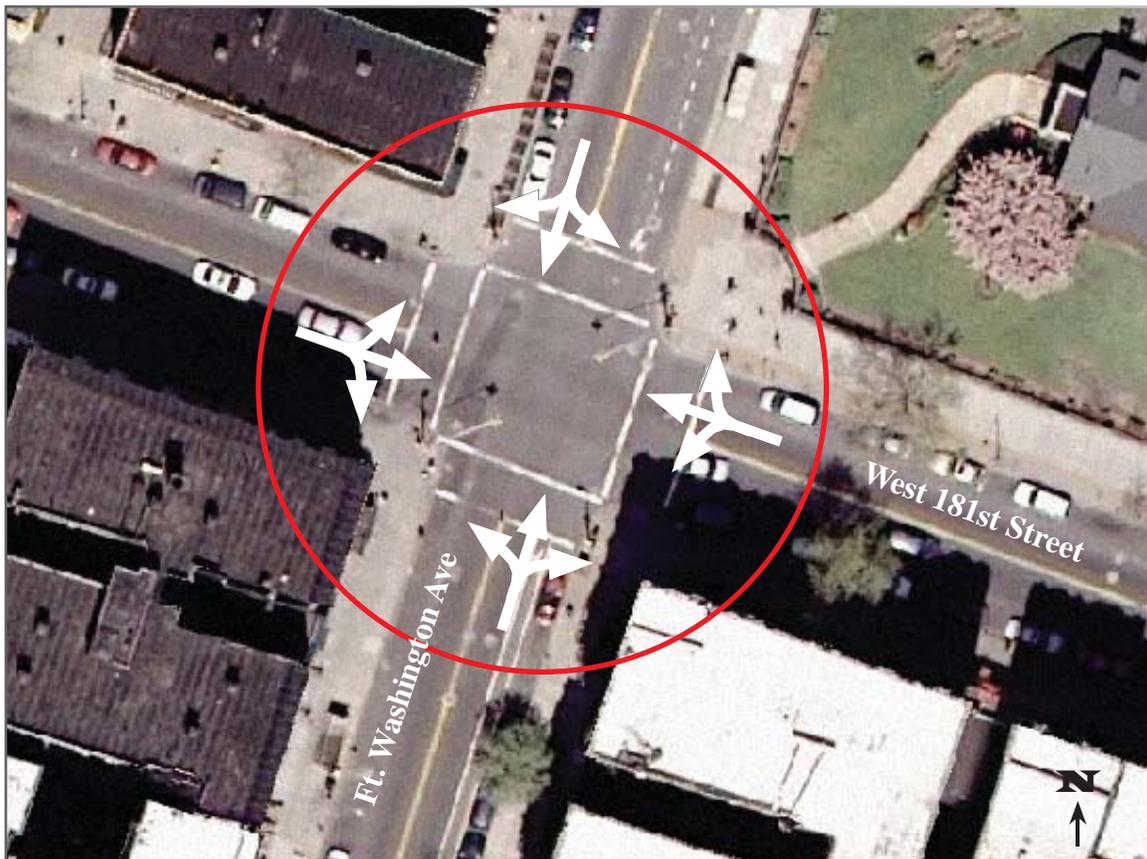
Existing Conditions

Ft. Washington Avenue & West 181st Street

Ft. Washington Avenue at West 181st Street is a signalized intersection with four regular crosswalks with curb cuts at each corner (Photo 2). Ft. Washington Avenue is 43 feet 6 inches wide with one northbound and one southbound vehicle travel lane and one 5-foot Class 2 northbound bicycle lane. There is curbside parking on each side of the street. Along Ft. Washington Avenue, there is a bus stop for the M4 and M98 at the northeast corner and posted street sweeping parking regulations are No Parking 11AM to 12:30PM Tuesday and Friday on the east side and No Parking 11AM to 12:30PM Monday and Thursday on the west side. The sidewalk on the east side is 18 feet 4 inches wide and 17 feet 9 inches wide on the west side. There is an “A” Train subway station located at the southeast corner of the intersection.

West 181st Street is 41 feet wide with one eastbound and one westbound travel lane. Curbside metered parking is on each side of the street. The sidewalks along West 181st Street are 19 feet wide. This intersection has the highest pedestrian volumes and

Photo 2 - The intersection of Ft. Washington Avenue and West 181st Street.



the most pedestrian accidents (10) in the study area. There were 19 reportable accidents at this intersection (2004-2006) and 53% involved pedestrians and 11% (2) involved bicycles. Out of the 10 reportable accidents with pedestrians, 6 involved vehicles making left turns.



Photo 3 - The northeast corner of the intersection of Ft. Washington Avenue and West 181st Street. The northbound bike lane starts again and is located next to a bus stop.



Photo 4 - Looking east on West 181st Street. The single lane is for three movements: left, through and right turn.



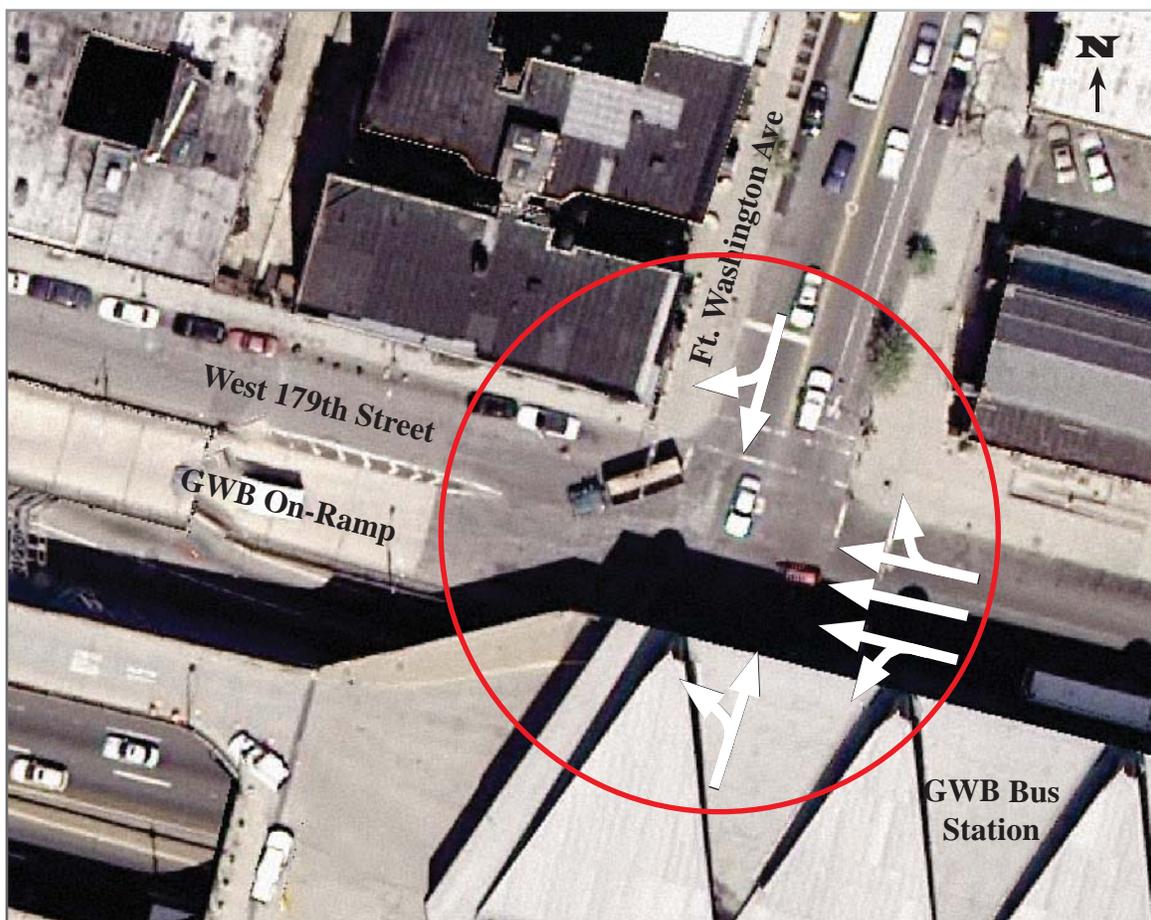
Photo 5 - The southwest corner of the intersection and pedestrians in the southern crosswalk.

Existing Conditions

Ft. Washington Avenue & West 179th Street

Ft. Washington Avenue continues to be a two-way street with one northbound and one southbound vehicle travel lane (Photo 6). Ft. Washington Avenue is 44 feet wide with one northbound 5-foot Class 2 bike lane. The intersection with West 179th Street is signalized with four regular crosswalks with curb cuts at each corner. Curbside parking is permitted on Ft. Washington Avenue north of West 179th Street with regular street sweeping regulations. However, a “No Parking Anytime” regulatory sign prohibits curbside parking on the east curb for approximately 120 feet in front of Holyrood Church. South of West 179th Street, under the George Washington Bridge Bus Station, there is No Standing Anytime with a Taxi Stand and an M4 bus stop on the east curb. The west curb is on a 14-foot, 9 inch raised sidewalk median with a restricted access 19-foot travel lane. West 179th Street is one way westbound with three vehicle travel lanes with no curbside parking along the north curb east of Ft. Washington Avenue. There are many bus movements in this area due to the George Washington Bridge Bus

Photo 6 - The intersection of Ft. Washington Avenue and West 179th Street.



Station and the New York City Transit bus stops and layover area (see bus section on page 1-4) and the south curb of West 179th Street east of Ft. Washington Avenue is a bus layover (Photo 7). On the west side, there is one travel lane on West 179th Street and two George Washington Bridge on-ramp travel lanes (Photo 7). The two on-ramp travel lanes measure a total of 27 feet wide and the West 179th Street travel lane is 24 feet wide with curbside parking on the north side only.

A George Washington Bridge on-ramp (Photo 6 and Photo 8) for cars and trucks is located on the west side of the intersection (the off-ramp is located one block south on West 178th Street). Subsequently, the LOS for the northbound movement at this intersection in the PM peak hour is “E” with a delay of 66 seconds due to the left-turning vehicles accessing the on-ramp.

This intersection has a PM peak hour delay at 35 seconds and LOS of “C” (see Traffic Operations page 3-1).

There are no reported pedestrian accidents at this intersection in 2004-2006. There are four clearly visible east-facing, red “Yield To [Pedestrian Symbol]” regulatory signs (NYCDOT SR 1113) at each corner of the intersection which may have helped contribute to the fewer number of pedestrian accidents (Photo 9). There are access issues related to pedestrians and bicyclists trying to use the pathway



Photo 7 - East of Ft. Washington Ave., West 179th Street has three travel lanes, no parking on the north curb and a bus layover on the south curb.



Photo 8 - The west crosswalk that crosses the GWB on-ramp and West 179th Street.

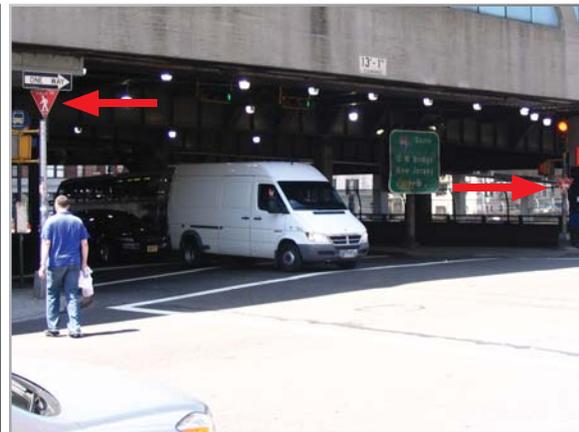


Photo 9 - Looking southwest at the intersection at the GWB Bus Station and two “Yield To [Pedestrian Symbol]” signs.

along the northern side of the GWB to New Jersey. The PANYNJ frequently closes the regular greenway along the southern side of the GWB for bridge work and maintenance and users are directed to take the pathway along the northern side. Pedestrians see the white gate entrance and walk up a 3-foot sidewalk along a GWB westbound vehicle on-ramp to reach the pathway while cyclists ride back and forth (Photo 10). The white gateway, leading directly to Ft. Washington Avenue, suggests that this used to be the access point to the pathway. The current entrance to the northern pathway is further down West 179th Street via a stairway (Photo 11). It is unclear whether the PANYNJ plans to have both pathways open in the future, one pathway, or separate bicycles and pedestrians similar to the Manhattan Bridge where bicycles are on the north side of the bridge and pedestrians travel along the south side. The median dividing the GWB on-ramp and West 179th Street does not extend to Ft. Washington Avenue (Photos 12-13) as it does with the off-ramp located at West 178th Street. This creates a very large open space for vehicles to make wide turns at higher speeds.



Photo 10 - The red arrow indicates the white gate entrance to the northern GWB pathway that leads to the 3-foot sidewalk.



Photo 11 - The red arrow indicates the official access point to the GWB pathway via West 179th Street.

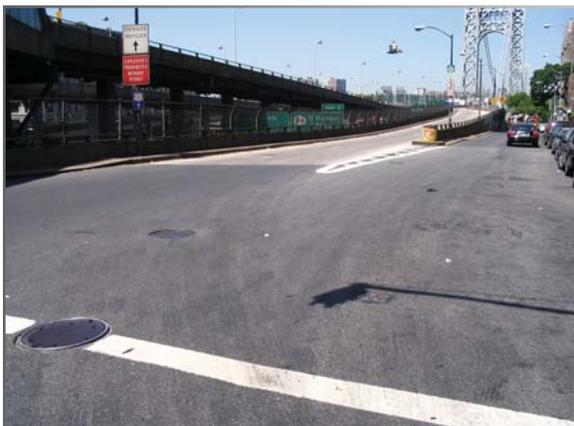


Photo 12 - Looking west at the striped median dividing the on-ramp from West 179th Street.



Photo 13 - Looking east from the striped median dividing the on-ramp & West 179th Street.

Existing Conditions

Ft. Washington Avenue between West 179th Street & West 178th Street

Along Ft. Washington Avenue between West 179th Street and West 178th Street is a very short block that is located over the Trans Manhattan Expressway and underneath the GWB Bus Station. There is no curb side parking on either curb but there is an M4 bus stop on each side (Photo 14) and a Taxi Stand on the west curb. During fieldwork, no taxis were observed using the taxi stand (Photo 15). The overhead lighting seems to be inadequate as it is always dark and uninviting underneath the bus station. There is a restricted access lane for authorized vehicles along the west side of the street (Photos 16-17). The median between this lane and Ft. Washington Avenue functions as a sidewalk and a waiting area for the M4 bus. A police officer is often parked close to West 178th Street and GWB off-ramp.



Photo 14 - The red arrows indicate the M4 bus stops.



Photo 15 - The red arrow indicates the Taxi Stand in front of one of the entrances to the bus station.

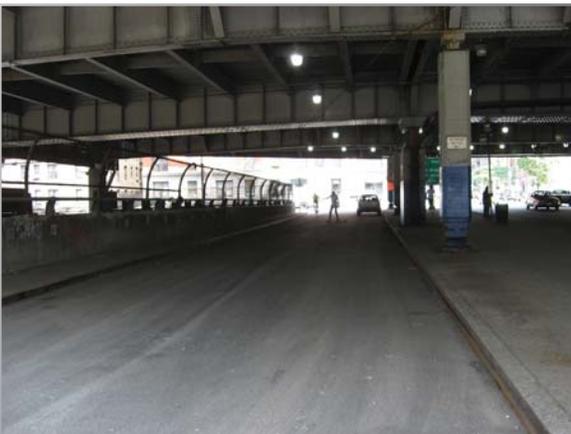


Photo 16 - Looking north at the restricted access lane.



Photo 17 - Looking south at the restricted access lane.

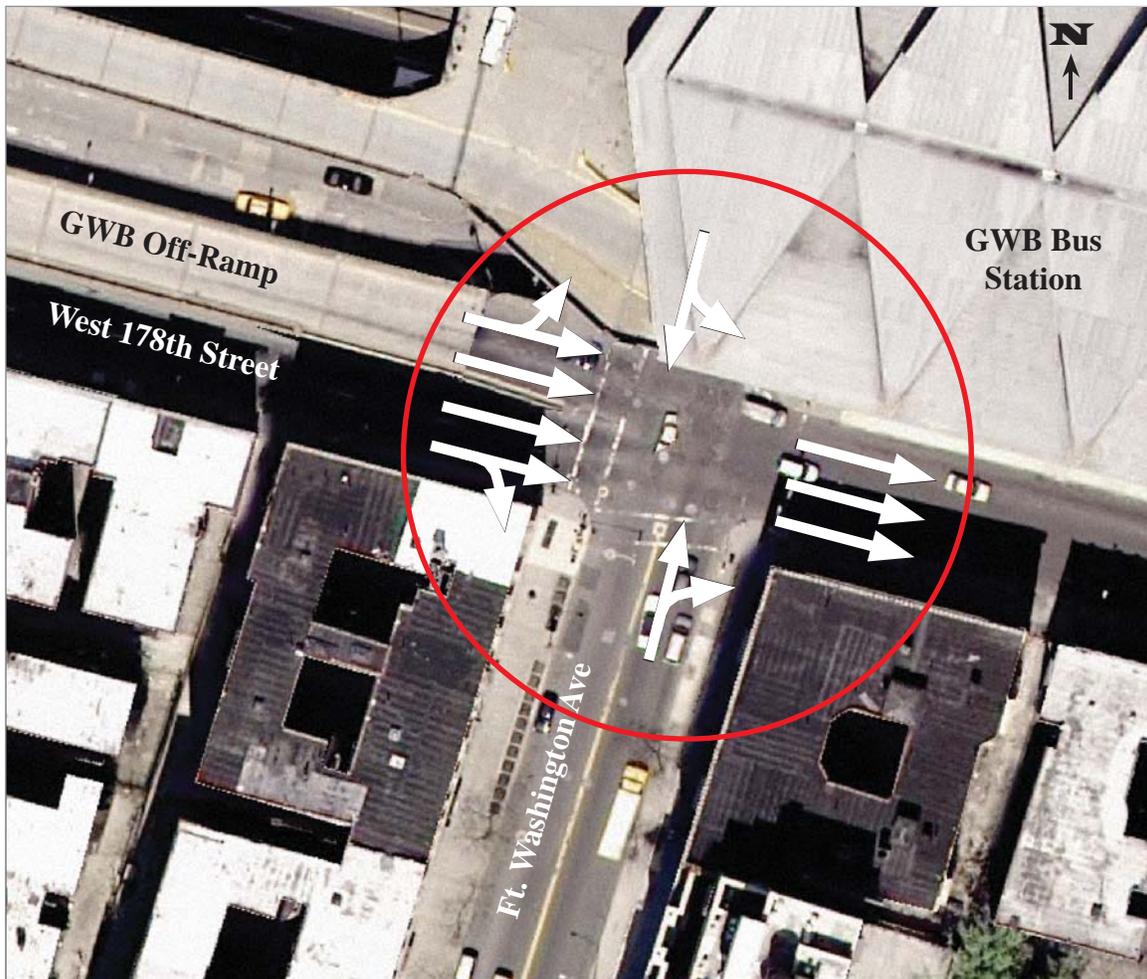
Existing Conditions

Ft. Washington Avenue & West 178th Street

West 178th Street is one way eastbound with two travel lanes and no curbside parking (Photo 18). As West 178th Street approaches the intersection with Ft. Washington Avenue, a George Washington Bridge off-ramp with two additional eastbound travel lanes descends to the same intersection with Ft. Washington Avenue. This creates four eastbound travel lanes. Concrete barriers are placed between West 178th Street and the George Washington Bridge off-ramp. The four travel lanes merge into three lanes eastward to Broadway is part of U.S. Highway 9 which is also a truck route.

Vehicles traveling eastbound on West 178th Street to Ft. Washington Avenue can continue east through the intersection or turn right (southbound): no left turn

Photo 18 - The intersection of Ft. Washington Avenue and West 178th Street.



(northbound) movement is permitted. Vehicles traveling eastbound on the George Washington Bridge off-ramp can continue east through the intersection or turn left (northbound): no right turn (southbound) is permitted. During field observations at this intersection, a police officer was often parked in the restricted access lane underneath the bus station facing the intersection. There are many regulatory signs posted at and preceding the intersection such as mandatory lane control signs and turn prohibition signs, as well as lane markings. This suggests that the eastbound vehicle movements are problematic with drivers on West 178th Street attempting to make the left turn movement onto Ft. Washington Avenue northbound and George Washington Bridge off-ramp vehicles attempting the prohibited right turn movement onto Ft. Washington Avenue southbound. Despite the turn restrictions, the police presence and the quantity of signage, over the duration of the manual vehicle counts undertaken for this project, 26 vehicles made the illegal left turn movement and 12 vehicles made the illegal right turn movement.



Photo 19 - Vehicles at the eastbound through movement at the Ft. Washington Avenue and West 178th Street intersection.



Photo 20 - The east sidewalk recorded the highest pedestrian volumes in our study.

This intersection has the highest number of total reportable accidents in our study area at 26. There were four reportable pedestrian accidents and three bicycle accidents. The detailed accident reports usually contain incomplete information, but the reports indicate that: all three bicycle accidents involved eastbound vehicles; three of the pedestrian accidents were at night; two of the pedestrian accidents were during raining and wet weather and road conditions; one pedestrian accident was attributed to a bus making an improper right turn while one had a pedestrian crossing against the signal. The vehicular volumes at this intersection were the largest in our study area and the eastbound through movement across Ft. Washington Avenue from West 178th Street and the bridge off-ramp (Photo 19) has the highest volumes for a single movement at 860 vehicles in the AM peak hour for the eastbound through movement (see Traffic Operations for a more detailed discussion). The east crosswalk at this intersection also recorded the highest pedestrian volumes (Photo 20).

There is one pedestrian oriented sign at the intersection with a “Yield To [Pedestrian Symbol]” regulatory sign facing north at the southeast corner of the intersection for vehicles making left turn movements from southbound Ft. Washington Avenue. Vehicle signage restricting turning movements are visible to drivers on the GWB off-ramp and West 178th Street (Photos 21-22). The left turn restriction is only for drivers on West 178th Street and the right turn restriction is only for drivers on the GWB off-ramp. Photo 22 shows four MUTCD R3-1 regulatory signs indicating no right turn for the GWB off-ramp traffic. The sign is visible from West 178th Street where the photo was taken. The R3-2 no left turn sign at the right is for vehicles on West 178th Street.

The West 178th Street approach to the intersection has clear street markings: a Turn and Through Lane-Use Arrow; and a Through Lane-Use Arrow (Photo 23) while the GWB off-ramp approach to the intersection has no street markings (Photo 24).



Photo 21 - Regulatory signs for vehicles.



Photo 22 - Signs for the GWB off-ramp visible to drivers on West 178th Street.



Photo 23 - Street markings on West 178th Street.



Photo 24 - The GWB off-ramp approach to the intersection with no street markings.

Existing Conditions

Cabrini Boulevard between West 178th Street & West 177th Street

Cabrini Boulevard between West 177th Street and West 178th Street is one short block approximately 260 feet in length. The Boulevard is one-way northbound and dead ends at the George Washington Bridge and the Trans Manhattan Expressway. There are two travel lanes divided by a two-foot raised median (Photos 25-26). Most likely this was once a bi-directional street. Cabrini Boulevard makes a “T” intersection with West 177th Street and also with West 178th Street. Peak hour vehicle volumes were very low in this area (see Traffic Analysis). Curbside parking is permitted on each side of the Cabrini Boulevard but not along the median. Photo 29 shows the entrance



Photo 25 - The raised median dividing Cabrini Boulevard between West 177th Street and West 178th Street.



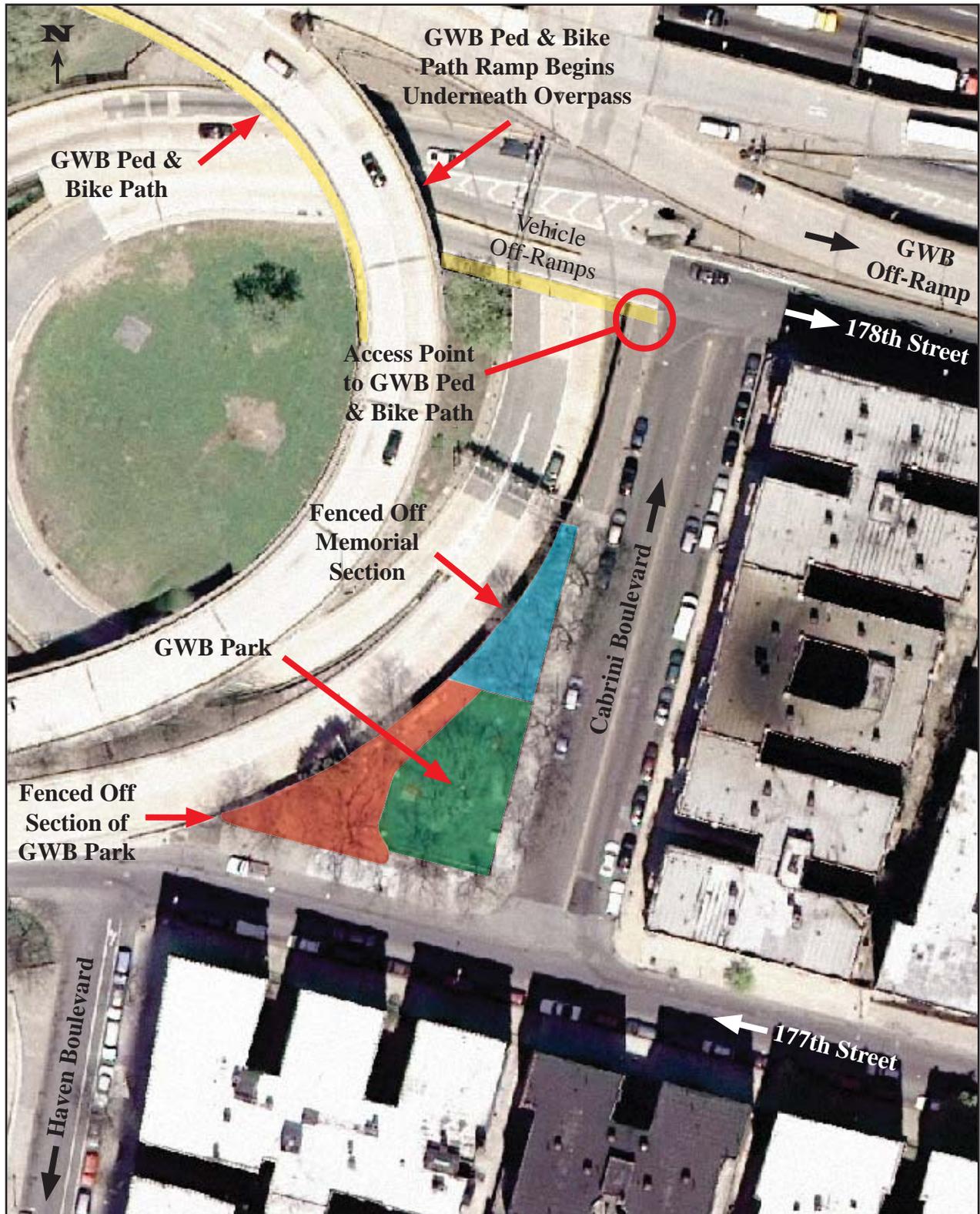
Photo 26 - During street sweeping hours, vehicles double park along one of the curbs.

to the George Washington Bridge pedestrian and bicycle pathway which is the only non-motorized connection between Manhattan and New Jersey. The pathway leading up to the bridge and the entrance at the southwest corner of Cabrini Boulevard and West 178th Street is an existing city sidewalk converted into a shared use pathway (Photos 28-29) and does not meet the American Association of State Highway and Transportation Officials (AASHTO) criteria for a shared used path. The existing pathway varies in width from 5 feet at the transition point where bicyclists go from on-street to off-street to 9 feet further down the pathway. AASHTO recommends a shared use path be 10 feet wide. There are no markings or signage to indicate where pedestrians and bicyclists should be located on the pathway or that the pathway is shared between pedestrians, joggers, bicyclists, etc. Also, because the pathway is bi-directional and narrow, there should be a better barrier between the pathway and roadway.



Ft. Washington Avenue

Photo 27 - Cabrini Boulevard between West 177th Street and West 178th Street.



Existing Conditions Cabrini Boulevard and West 178th Street Pathway Entrance



Photo 28 - Looking east toward Cabrini Boulevard at the existing pathway that must be shared between pedestrians and bicycles. The pathway varies in width from 7 feet to 9 feet, but is consistently under 10 feet wide. There are very few signs and no markings leading to the bridge pathway.



Photo 29 - The entrance to the off-street pathway to the George Washington Bridge. The red arrow indicates where the bridge pathway begins, approximately 145 feet west of this pedestrian ramp. The inset image shows the only sign near the entrance indicating the bridge pathway. This sign is also visually obstructed behind a pole.



Photo 30 - Looking west at the entrance to the access point to the GWB pathway. The redesign of this area is an excellent opportunity to improve this pedestrian and greenway connection. There is no indication that this is the entrance to the GWB greenway.



Photo 31 - Vehicles on both exit ramps as they merge into West 178th Street. There is enough space on the roadway to add width to the existing pathway. The lane on the left varies in width from 12 feet 8 inches to 16 feet. The lane on the right is wider with a painted median.

Existing Conditions

George Washington Bridge Park

The George Washington Bridge Park is a very small pocket park located at the west corner of Cabrini Boulevard and West 177th Street. This park is mainly used by nearby residents. During fieldwork at this location, many families with children and strollers were observed using the park as well as people enjoying other passive recreation (reading, eating, talking, etc.). At the northern tip of the park are three boulders with plaques: Memorial Park dedicated to Port Authority employees who died on 9/11; a memorial to those who perished on American Airlines Flight 587 on 11/12/01; and a plaque dedicated in 1969 to the civil achievements of Louie Stern (Photo 32). Surrounded by chain-link fencing, there is no access to this memorial park. The three plaques must be viewed from the sidewalk and standing behind the fence. The fencing creates inaccessible green space in the park (Photo 27). There are no pedestrian ramps at either corner of Cabrini Boulevard and West 177th Street and Photo 34 shows the northwest corner by the park.



Photo 32 - The three memorials.



Photo 33 - The seating area and playground in the park.



Photo 34 - Wide sidewalks and fenced-off green space create an opportunity for expanding the park.

Existing Conditions

West 177th Street Broadway to Cabrini Boulevard

West 177th Street is 30 feet wide and one way westbound from Broadway to Haven Avenue. Curbside parking is permitted on the south side of the street with No Parking Tuesday and Friday from 11:30 AM to 1 PM. There are “No Parking Anytime” signs posted from Broadway to Haven Avenue along the north curb leaving a very wide single travel lane (Photo 36). The only signalized intersection in this segment is at the intersection of Ft. Washington Avenue and West 177th Street. At this intersection there are crosswalks at all four crossings, stop lines on three, and pedestrian ramps at all four locations. West 177th Street is the proposed bike route to the George Washington Bridge greenway in the New York City Bicycle Master Plan.



Photo 35 - Looking south at Ft. Washington Avenue and West 177th Street intersection and a partially obstructed sign to the GWB greenway.



Photo 36 - A 30-foot wide roadbed with curbside parking along one curb.



Photo 37 - Looking east at the east corner of the intersection of Cabrini Blvd and West 177th Street during street sweeping. There are no curb cuts at this location.



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