Riverdale, Bronx NYC
Smart Growth Plan

Prepared for

Riverdale Advisory Committee
NYSERDA

June 2016

Prepared by

vhb
Engineers | Scientists | Planners | Designers

Existing
Riverdale Ave. at W. 260th St.

Riverdale, Bronx NYC Smart Growth Plan

A Roadmap for Creating a Safer, Greener and Revitalized Downtown

http://www.riverdalebronx.nyc/

Prepared in 2016 by VHB P.C. for the North Riverdale Merchant & Business Association through a Cleaner Greener Communities grant from the New York State Energy Research & Development Authority (Grant CGC 39588).

The North Riverdale Merchant and Business Association formed in 2012. Members include business and property owners, residents and local institutions interested in revitalizing Riverdale Avenue, Mosholu Avenue and Broadway in Zip Code 10471. The board of directors include Gary Wartels (president), John Evans (vice president), Patricia Cassiere (treasurer) and Valerie Adelman (secretary). Christopher Rizzo chaired the advisory group for the preparation of this Plan. Members of the advisory group can be found at the project website at www.riverdalebronx.nyc. The Association gives special thanks to local elected officials that are support this planning process: NYC Councilman Andrew Cohen, NYS Assemblyman Jeffrey Dinowitz, Borough President Ruben Diaz and NYS Senator Jeffrey Klein. The Association also recognizes the support of the Kingsbridge Riverdale Van Cortlandt Development Corporation.

Notice

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Executive Summary

The North Riverdale Merchant and Business Association commissioned this Smart Growth Plan to provide potential solutions and recommendations to address conditions, issues and problems on Riverdale Avenue, Mosholu Avenue and Broadway in Zip Code 10741. Working with consultant VHB, the Association identified a number of traffic, pedestrian safety, aesthetic and environmental conditions in the 2015 Existing Conditions Report. The Association sought feedback from the Advisory Committee of community leaders and businesses. The Association will also submit this plan for public review at Bronx Community Board 8. A schedule of prior and forthcoming meetings is attached as Appendix B.

The following provides a summary of the issues identified in the Existing Conditions Report, the solutions and key recommendations contained in this Draft Plan, including implementation and funding for the improvements, maintenance requirements and the potential benefits. The improvements are divided into four overlapping categories: (1) safety; (2) traffic flow; (3) parking safety; and (4) appearance and environmental sustainability.

Summary of Existing Conditions Report

The Existing Conditions Report identified a number of serious problems within the study area, which have persisted due to New York City's insufficient investment in the upkeep and maintenance of the existing infrastructure and amenities on Riverdale Avenue, Mosholu Avenue and Broadway. Some of the areas of concern directly impact traffic and pedestrian safety, economic development and environmental sustainability in portions of Riverdale's business districts. In many areas, the current state of the roadways, sidewalks and crosswalks is not consistent with the Mayor's *Zero Vision Plan* which advocates safety improvements such as improving visibility at intersections, adding crosswalks and pedestrian safety islands, adding bike lanes, creating left–turn lanes and maintaining pavement markings. Nor is it consistent with New York State's Complete Streets Act, which encourages safe spaces for pedestrians, drivers, public transportation and (where appropriate) bikes.

Solutions and Recommendations

Following the examination of existing conditions and issues raised, several objectives have been identified in outlining the goals of the Smart Growth Plan. The objectives of the Smart Growth Plan include the following:

- Safety. Section 2 of the Draft Plan discusses traffic calming strategies in order to reduce the speed of vehicular drivers, dramatically improve pedestrian safety and accommodate bikes where appropriate

- Traffic. Section 3 identifies ways to improve traffic flow, including by adding turn lanes, medians and managing school loading zones. Where medians are installed, the road width will allow traffic to pass even where cars and buses stop or double-park illegally.

- Parking. City wide, the NYC DOT has moved towards improving delineation of parking lanes and installation of buffers so people can exit their vehicles safely. Section 4 outlines how these approaches should be adopted in Riverdale.

- Environmental Sustainability and Appearance. Section 5 discusses improvements to simultaneously improve environmental sustainability and appearance of the district. Improvements include planting new trees in tree pits, larger tree pits and tree guards. In a few locations, more sophisticated improvements should be made like new green infrastructure such as bioswales, and landscaped medians. A uniform system of street furniture, particularly garbage bins and signage, would improve attractiveness.

- Broadway. The New York City Department of Transportation is studying Broadway and ways to calm traffic, create safer pedestrian conditions and improve aesthetics. The Association strongly supports this work and this Draft Plan contains several key recommendations for that planning work. Moreover, as New York City Department of Parks implements the Van Cortlandt Park 2034 Master Plan, a better Broadway, including safer pedestrian crossing locations, will be part of an overall revitalization of the park.

Achieving all these improvements will require public funding. And getting that public funding will require the community to show the City and State that the improvements will encourage positive economic activity. To that end, the Association will be publishing at later date a report on deteriorated commercial sites that could be re-used consistent with existing zoning to improve the look and function of the business district. This Draft Plan also discusses the potential role of the Association and the community in long-term advocacy and maintenance of the improved business district, which is a vital component of its success.

The Association stresses that some of the improvements called for in this Draft Plan cannot wait. New York City DOT should immediately address some of the corrections no matter what additional streetscape improvements are implemented as part of this Smart Growth Plan. These include (1) restoring street pavement, curbs and bus pads; (2) creation of handicap accessible crosswalks and crossing signals; (3) enhancing marking of pedestrian crossings; (4) creation of striped medians and turn lanes; and (5) creation of marked parking lanes and buffer zones. These improvements can be designed to be compatible with the other improvements called for in this Draft Plan that require special funding and may take longer to implement.

Two other City agencies will have more targeted roles to play. New York City Department of Parks and Recreation should immediately install more street trees, replace numerous dead trees and expand tree pits where appropriate. New York City Department of Environmental Protection should look for opportunities to create enhanced tree pits and rain gardens for both aesthetic and storm water reasons. A number of businesses and residents identified storm water management as a major concern on certain streets.

Finally, with this Plan the Association endorses the other community planning initiatives undertaken in the past decade for Riverdale. They include the Van Cortlandt Park 2034 Master Plan, Hudson River Greenway, ongoing NYC DOT planning for Broadway and ongoing advocacy of the Riverdale Nature Preservancy to protect the integrity of Riverdale's Special Natural Area

District. The streetscape improvements outlined in this Plan can serve to connect the community's three great public spaces: the Hudson River, Van Cortlandt Park and its downtown business district.

1. Proposed Solutions (Introduction)

1.1. Plan Objectives

The Existing Conditions Report identified a number of serious problems within the study area, which have persisted due to insufficient investment in the upkeep and maintenance of the existing infrastructure and amenities. Some of the areas of concern directly impact traffic and pedestrian safety, economic development and environmental sustainability in portions of Riverdale's business districts. The issues and concerns identified in the Existing Conditions Report include the following:

- Correctable traffic accidents, including those involving pedestrian injuries or fatalities
- Speeding
- Deteriorating crosswalks, street painting, parking and bus zones and especially the need for better conditions for persons with disabilities
- Unsafe pedestrian access to the Metro-North Railroad station
- Lack of crossings from residential areas to Van Cortlandt Park
- Deteriorating tree pits and street trees
- Lack of plantings, signage and visual amenities in key business areas
- Underutilized or empty storefronts and commercial areas

Following the examination of existing conditions and issues raised (see Existing Conditions Report), several objectives have been identified in outlining the goals of the Smart Growth Plan. The objectives of the Smart Growth Plan include the following:

- Utilize traffic calming strategies in order to reduce the speed of vehicular drivers
- Improve safety among pedestrians and contribute to the walkability within the three corridors
    - Repainting crosswalks and realign if needed
    - Implement signage at key locations
    - Repair and implement ADA compliant ramps
    - Repair sidewalks where necessary
    - Improve the accessibility and connectivity of public transportation services, including:
        - Bus (MTA and Westchester County's Bee-Line connections)
        - Van Cortlandt Park-242nd Street Subway Station (1)
        - Metro-North Station

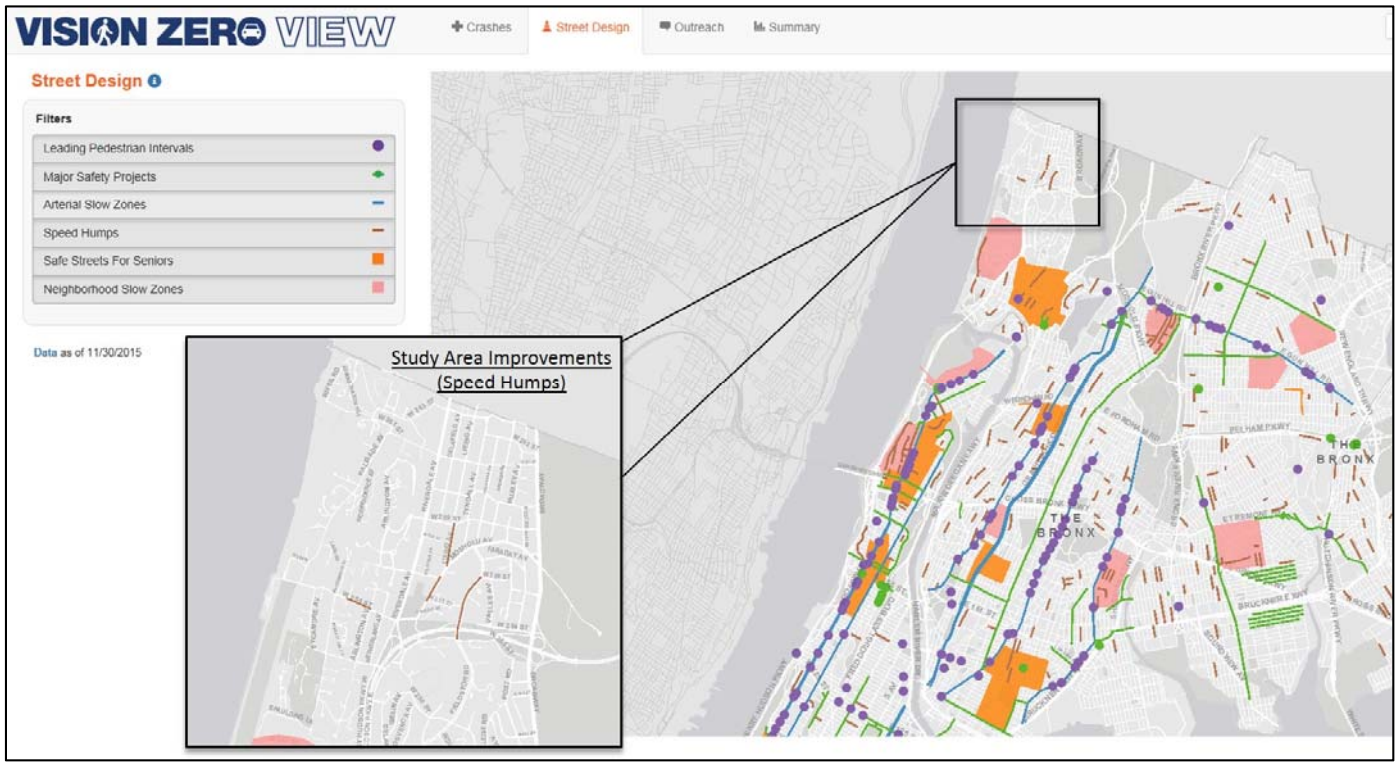
- Enhance the aesthetics of the streetscapes to promote pedestrian walkability
    - Plant new trees in tree pits where trees are dying or dead
    - Remove or prune overgrown vegetation to promote sidewalk accessibility
    - Implement landscaped medians
    - Add street furniture (benches, trash cans, information displays, etc.) where feasible
- Improve environmental sustainability of the corridors

Some of these improvements, such as pavement, striping and crosswalks upgrades, need to be addressed no matter what improvements are implemented as part of the Draft Plan. Other improvements will require special funding sources and should be implemented over two to three years.

1.2. NYC Mayor's Vision Zero Program

In many areas, the current state of the roadways, sidewalks and crosswalks is not consistent with the City's *Vision Zero Plan* which advocates safety improvements such as improving visibility at intersections, adding crosswalks and pedestrian safety islands, adding bike lanes, creating left–turn lanes and maintaining pavement markings. The conditions in the area also are not consistent with the design standards in the NYCDOT's *Street Design Manual* which includes Complete Streets principles that consider the safety and mobility of all roadway users (pedestrians, bicyclists, public transit riders and motorists), of all ages and abilities.

As part of the *Vision Zero Plan*, numerous improvements have been made to streets and intersections throughout New York City. However, practically all of these improvements are located outside of the study area, as shown in the Vision Zero View map below. As indicated in the map, the north Riverdale study area is virtually a traffic calming desert. The only Vision Zero View improvements that have been implemented within the study area are speed humps that have been installed along Mosholu Avenue (1 speed hump between W. 255th Street and W. 256th Street), W. 254th Street (1 speed hump between Arlington Avenue and Ravencrest Road), and Liebig Avenue (1 speed hump between Mosholu Avenue and W. 259th Street).



Vision Zero Street Design Map (locations of implemented Vision Zero projects)

2. Traffic Calming, Pedestrian, Motorist and Cyclist Safety

2.1. Traffic Calming

One of the principal concerns expressed by stakeholders, which is reflected directly in the speed data and indirectly in the accident data, is that vehicles routinely and significantly exceed the posted 25 mph speed limits in the study area, and that speeding detracts from the corridor's safety as well as the quality of life on the corridors. The primary goal of traffic calming measures should be to reduce speeds along the corridors.

Based on observations and measurements, the most effective way to do this on Riverdale Avenue and on Broadway would be to restripe the roadways so that, instead of providing two lanes for travel in either direction, a single lane, with a center turn lane, is provided in either direction. Although the number of through lanes will be reduced, the new roadway configurations, described in detail below, will provide sufficient capacity for through vehicles travelling at the posted 25 mph speed limit. Additionally, in areas where double-parking occurs, the proposed lane widths and buffer areas will allow for through vehicles to bypass double-parkers. Enhanced enforcement of existing parking rules would help reduce the number of double-parkers.

The current condition, where two lanes are provided in either direction, is undesirable because it allows speeders/faster vehicles to pass slower vehicles which may be traveling at or closer to the speed limit. It is also undesirable because it requires left-turning vehicles to stop in the leftmost through lane when waiting for a gap in opposing traffic. This presents a conflict with following through moving vehicles.

This change, sometimes referred to as a "road diet," often results in both safer and smoother traffic flow. Preliminary analyses indicate that it may be possible to eliminate the second through lane throughout the Riverdale Avenue and Broadway Corridors in the study area. In two locations, DOT will need additional analyses to confirm this:

- Riverdale Avenue at W. 254th Street (it is possible that the southbound bus-stop on the west side of the road will need to be moved from the near side of the intersection to the far side, to accommodate a southbound right-turn lane and that the eastbound approach of W. 254th Street may need to be widened by one or two feet to provide two 10-foot approach lanes and one 12-foot receiving lane to accommodate peak hour traffic).
- Broadway from David Sheridan Plaza to the southbound Henry Hudson Parkway ramps (while the analyses indicate that through lane reductions should be possible, such an improvement needs to be considered along with other traffic calming measures and safety improvements identified for these intersections).

It is noted that no through lane reductions are proposed on Broadway south of 6035 Broadway at this time. The proposed lane modifications to Riverdale Avenue and Broadway are described in detail below.

2.2. Riverdale Avenue

Riverdale Avenue has adequate width to support one lane in each direction with center turn lanes or a center median.[1] This configuration would tend to create a smoother and safer traffic flow than the current 4-lane configuration. Moving north, intersections include West 254th Street, West 256th Street, the entrance to Skyview Shopping Center, West 259th Street, West 260th Street and West 261st Street.

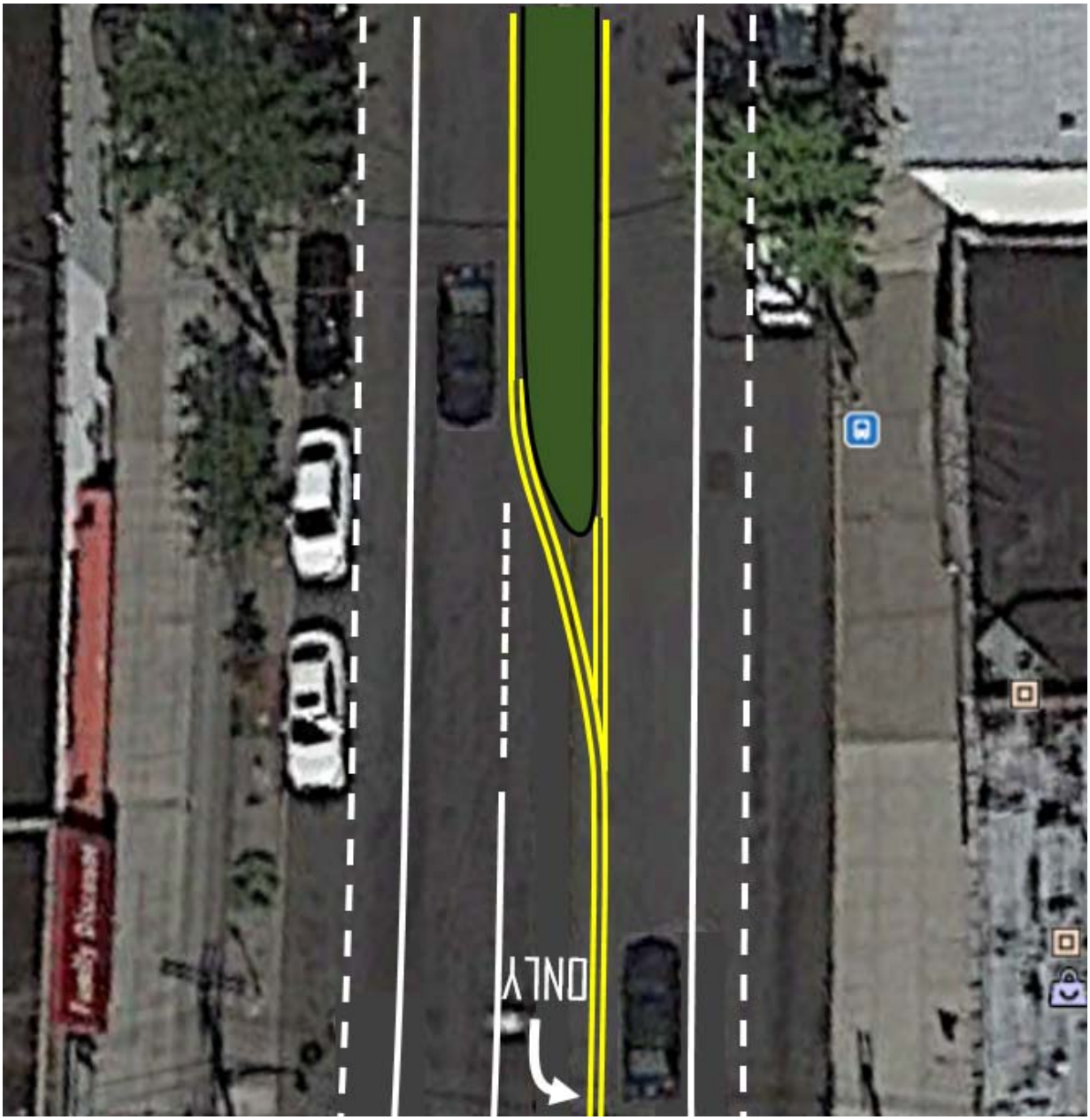
On Riverdale Avenue, it is recommended that one 8-foot parking lane and one 11-foot through lane be provided in either direction, and that an 11-foot center turn lane be located between northbound and southbound traffic. It is recommended that the remaining pavement width be restriped to provide a 4 to 6-foot buffer between parked cars and the through lanes on either side of the street. This buffer will make it safer for motorists to exit their vehicles and will also serve as a zone which will afford some protection to any cyclists on the corridor.

On blocks where there are no major traffic generators, it is recommended that the City consider installing center, landscaped medians between intersections (where the turn lanes are no longer needed) as one component of an improvement package intended to transform the corridor from an impervious asphalt thoroughfare to a more sustainable and aesthetically appealing environment for pedestrians. Generally, it is recommended that the center, landscaped median be 9 feet wide, with a 1-foot shoulder on either side. However, between W. 254th Street and W. 256th Street the median should be 7.5 feet wide and have a 2.5-foot shoulder in the northbound direction. This cross-section is intended to better accommodate school drop-off and pick-up activity at PS 81 where double parking on Riverdale Avenue occurs in the morning and afternoons

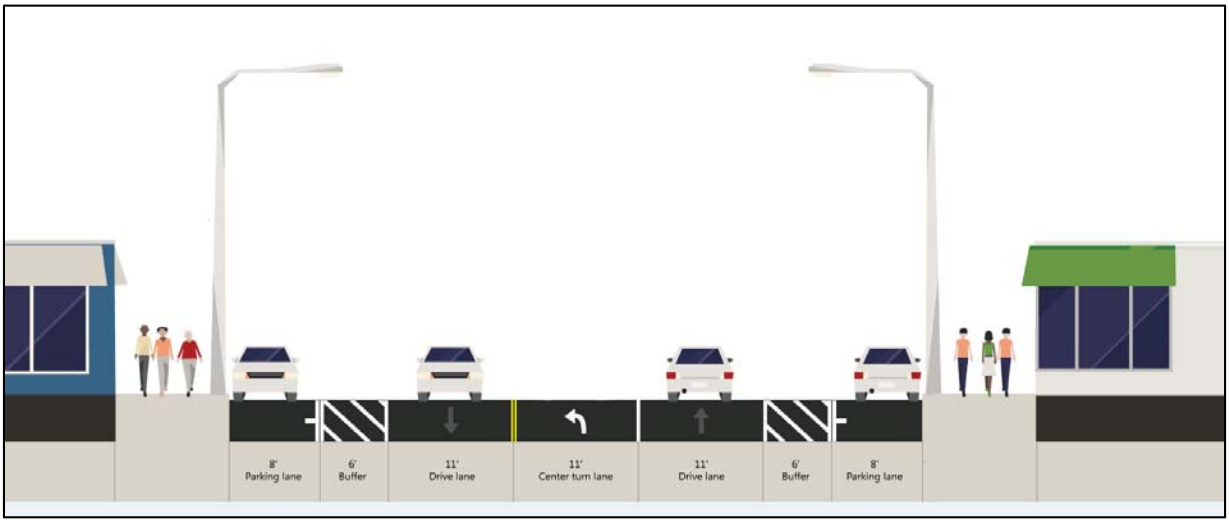
In only one location on Riverdale Avenue would significant changes be required to accommodate a median. As previously noted, at W. 254th Street, to adequately accommodate traffic, it may be necessary to relocate the southbound bus stop on Riverdale Avenue (either to the other side of the intersection or back approximately 100 feet) to allow the creation of a southbound right-turn lane, as well as to widen westbound W 254th Street by one or two feet to provide two approach lanes.

Examples of the recommended cross sections are provided below. The reconfiguration of Riverdale Avenue should be undertaken as soon as possible.

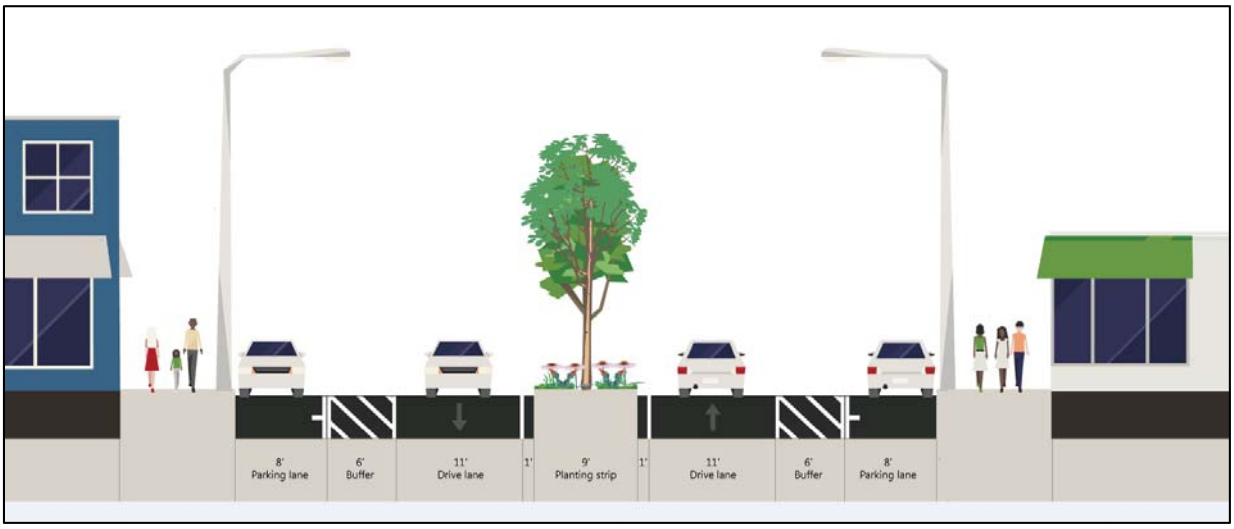
[1] Some public infrastructure lies under Riverdale Avenue and Broadway. This should not be a block to creation of a center median. In all cases, a striped median can be created. In many locations, landscaped traffic and pedestrian islands can be constructed to limit weight on the infrastructure and allow continued access to NYC DEP and Con Edison.



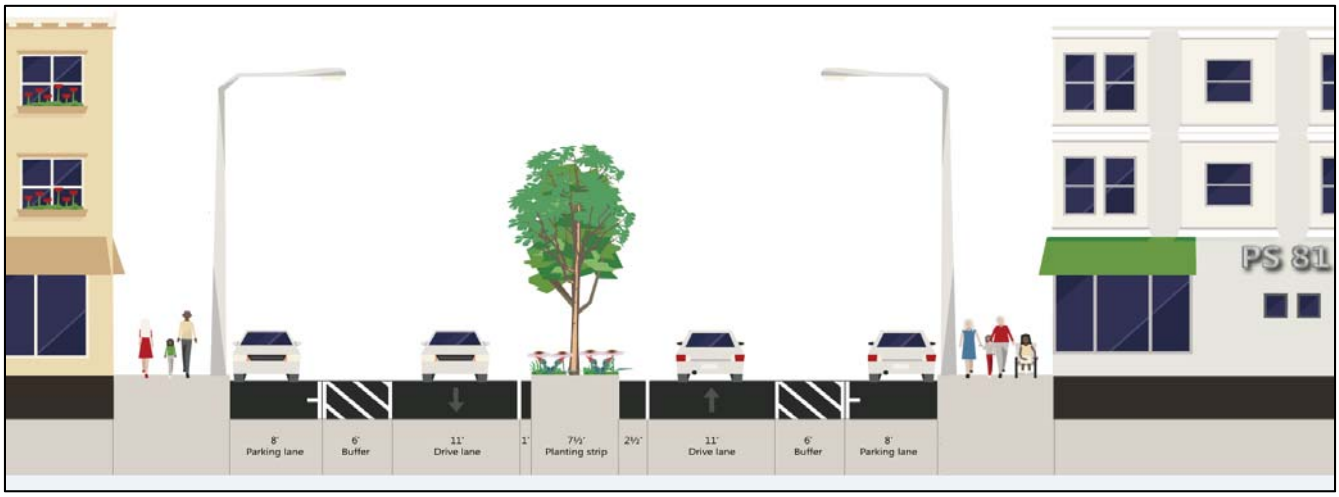
Recommended Reconfiguration of Riverdale Avenue



Recommended Cross Section of Riverdale Avenue at Intersections



Recommended Cross Section of Riverdale Avenue between Intersections



Recommended Cross Section of Riverdale Avenue in front of PS 81

NYCDOT's *Street Design Manual (2013, Second Edition)*, provides examples of typical bicycle lanes in the City, as shown below.

Examples of bike lanes that have been recently added to roadways in The Bronx are shown below.

Example of standard bike lane adjacent to parking lane, (Allerton Ave)

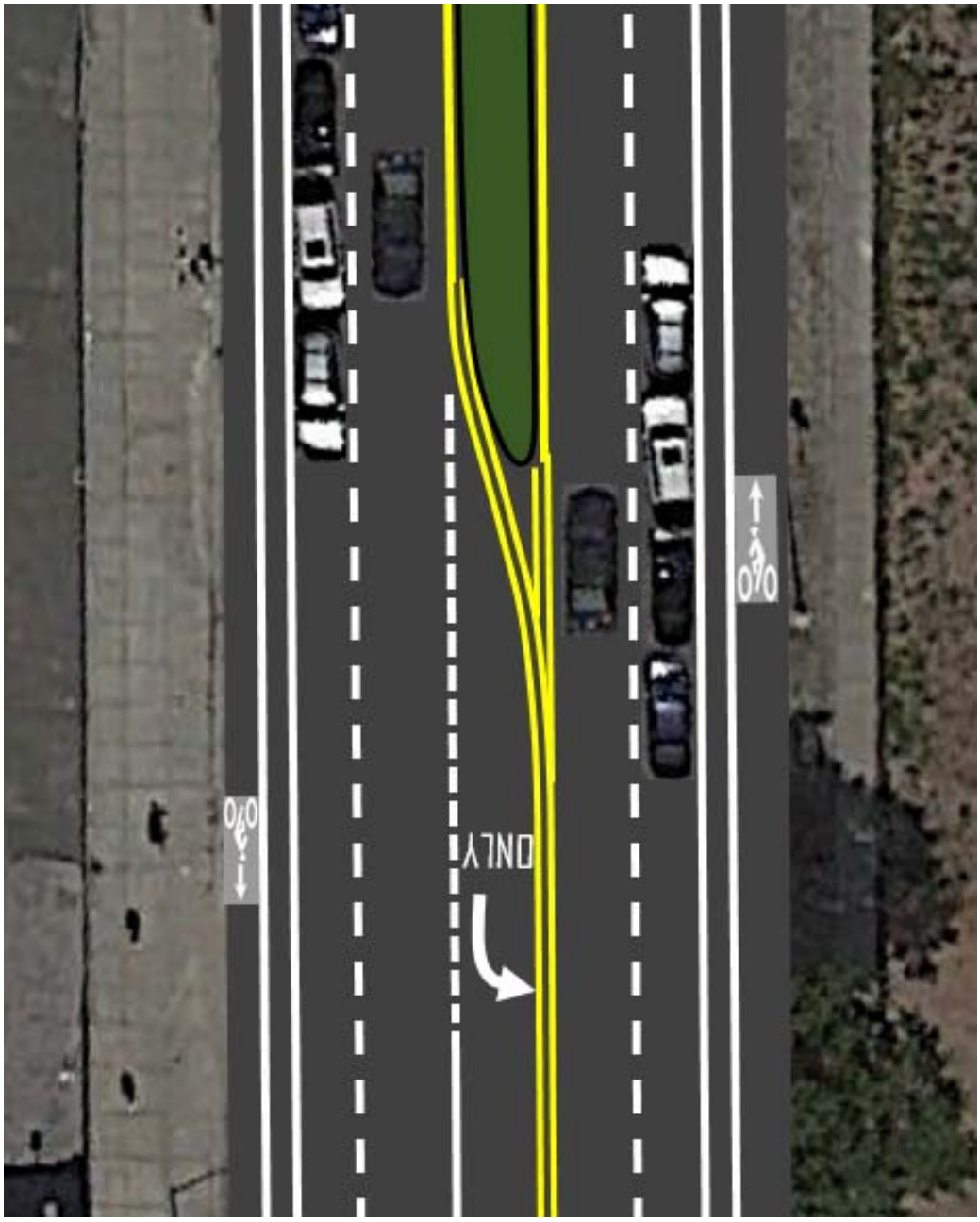
Example of buffer/bike lane adjacent to parking lane, with landscaped median (Unionport Road), as proposed for Riverdale Avenue.

2.3. Broadway

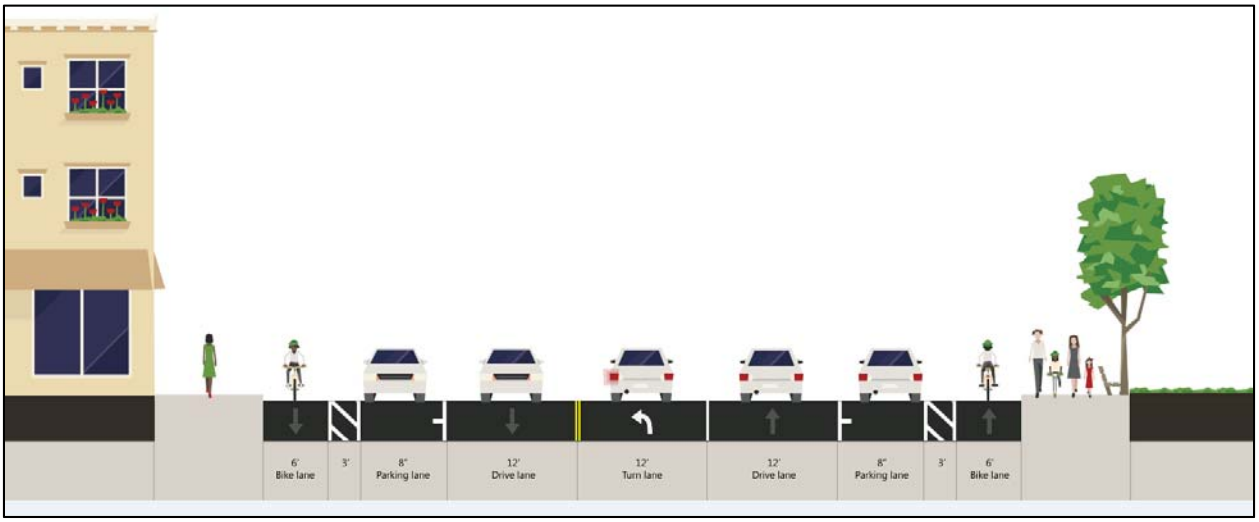
On Broadway, it is recommended that the City consider one of two options. Central to both options is the incorporation of bike lanes in either direction on Broadway, however, Option A, slightly favors bicycle traffic over car traffic by providing bike lanes and a buffer between the sidewalk and parallel, on-street parking, while Option B slightly favors car traffic over bicycles by providing improved sightlines at unsignalized intersections and driveways.

At intersections, **Option A** would consist of one 5 to 6-foot bike lane next to the curb, a 3-foot buffer, an 8-foot parking lane and a 12-foot through lane in either direction with a 12-foot center turn lane. **Option B** would consist of an 8-foot parking lane next to the curb, a 5 to 6-foot bike lane and a 12-foot through lane in either direction with a 12-foot center lane and 4-foot median with 1-foot shoulders in the center of the road. Depending on Broadway's cross section between intersections, described below, the 4-foot median would be either painted or raised.

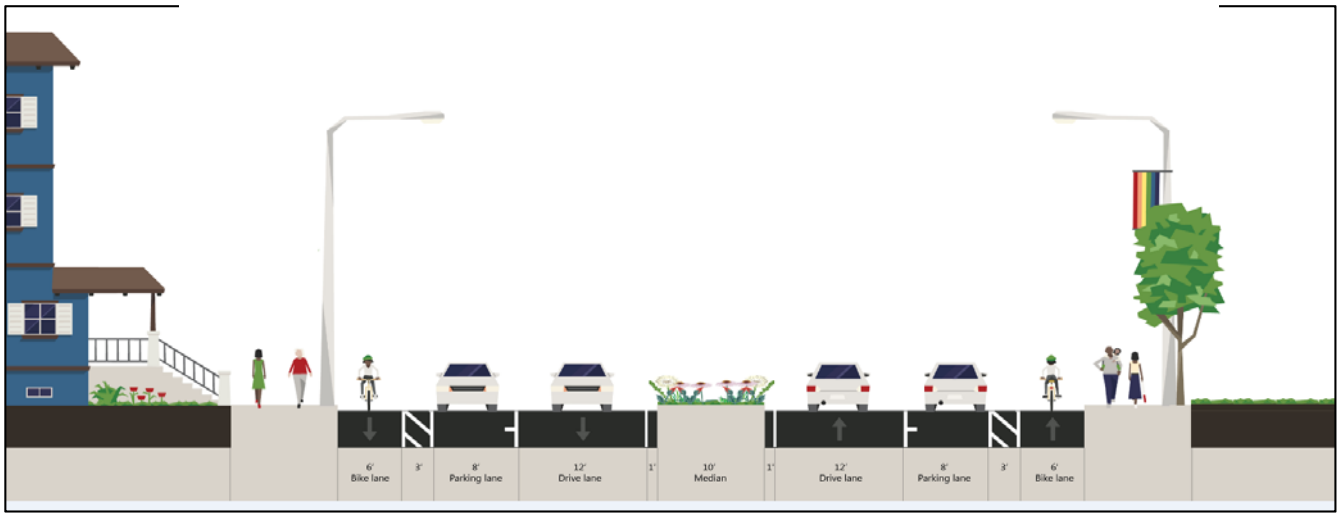
Along Broadway on blocks where there are no major traffic generators, it is recommended that the City consider installing center, landscaped medians between intersections (where the turn lanes are no longer needed) to transform the corridor into to a more sustainable and aesthetically appealing environment for pedestrians. **Option A** would consists of one 5 to 6-foot bike lane next to the curb, a 3-foot buffer, an 8-foot parking lane and a 12-foot through lane in either direction with a 10-foot center, raised median flanked by 1-foot shoulders. **Option B** would consist of an 8-foot parking lane next to the curb, a 5 to 6-foot bike lane and a 12-foot through lane in either direction with a 16-foot center, raised median flanked by 1-foot shoulders. Clearly, by using parked vehicles to shield cyclists from moving traffic and by providing a buffer to prevent/significantly reduce "dooring", Option A provides a distinctly better environment for cyclists.



Recommended Reconfiguration of Broadway – Option A

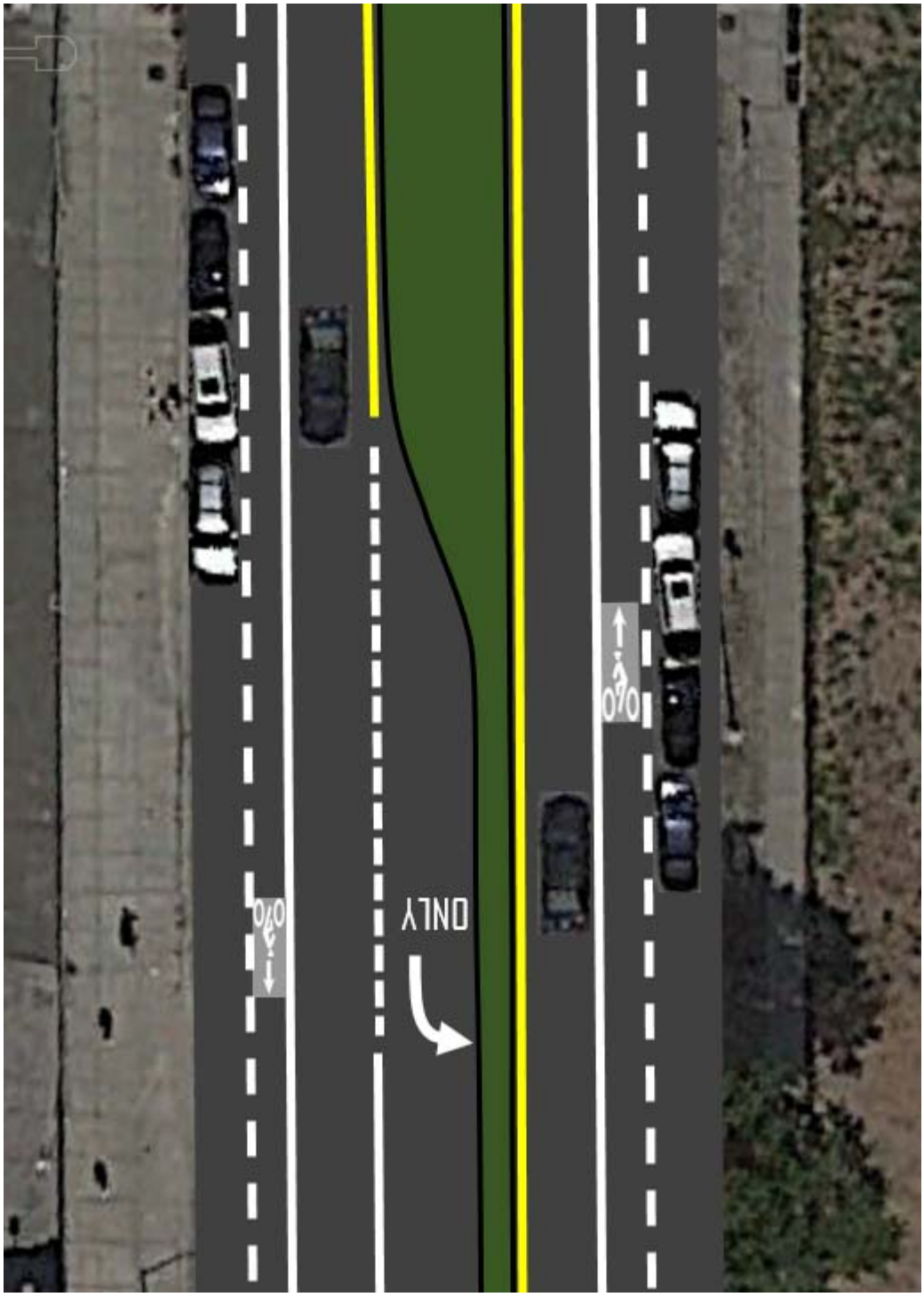


Recommended Cross Section of Broadway at Intersections – Option A

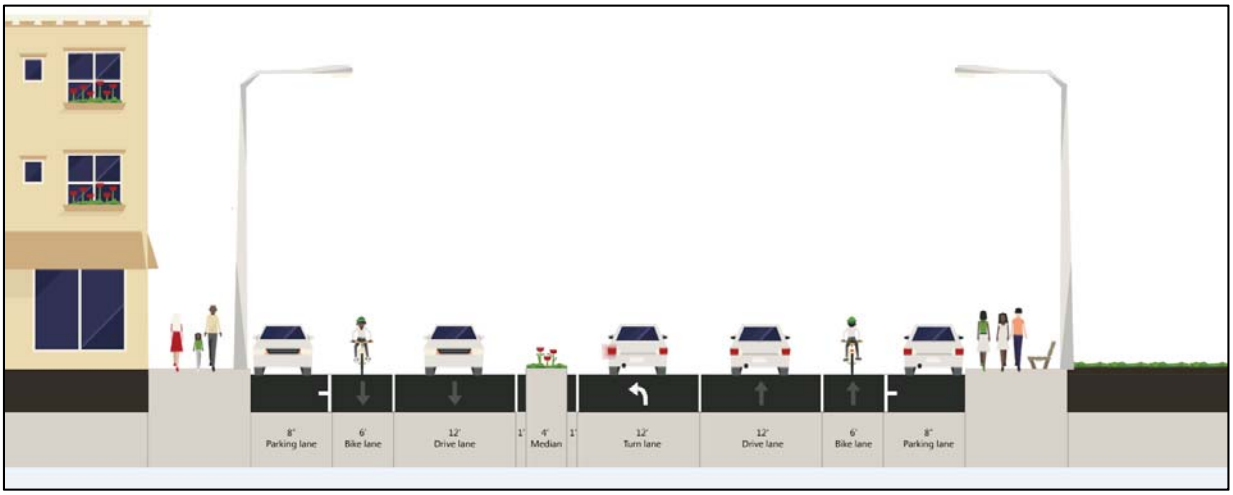


Recommended Cross Section of Broadway between Intersections – Option A

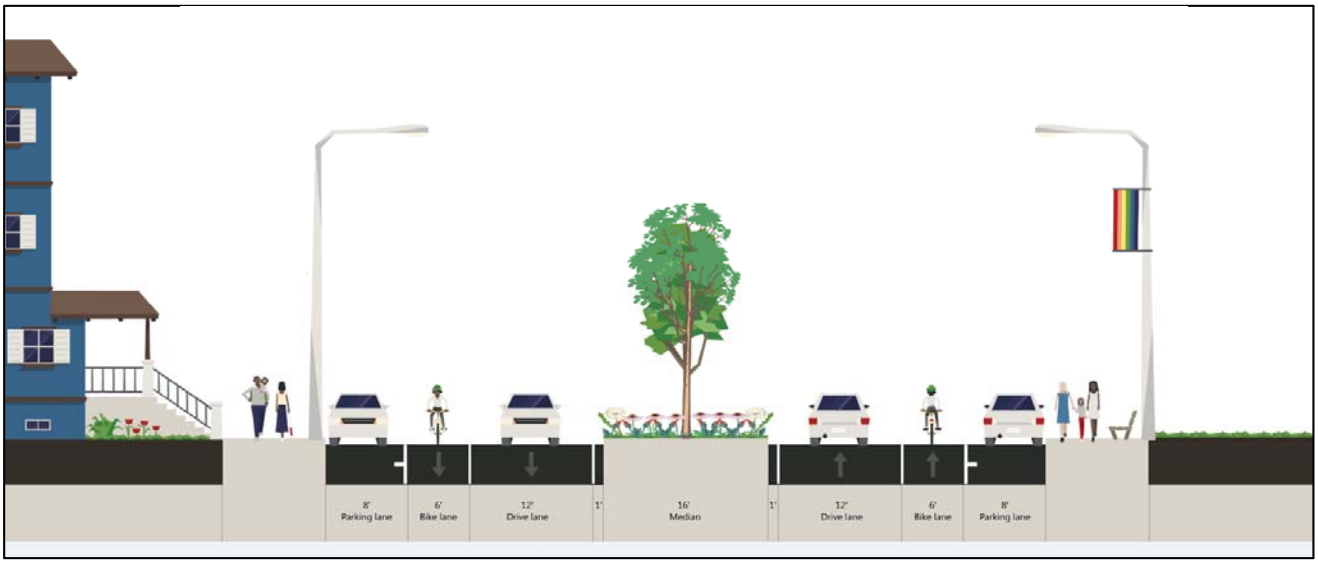
Example of Option A bike lane (curbside, inside of parking lane and buffer)



Recommended Reconfiguration of Broadway – Option B



Recommended Cross Section of Broadway at intersections – Option B



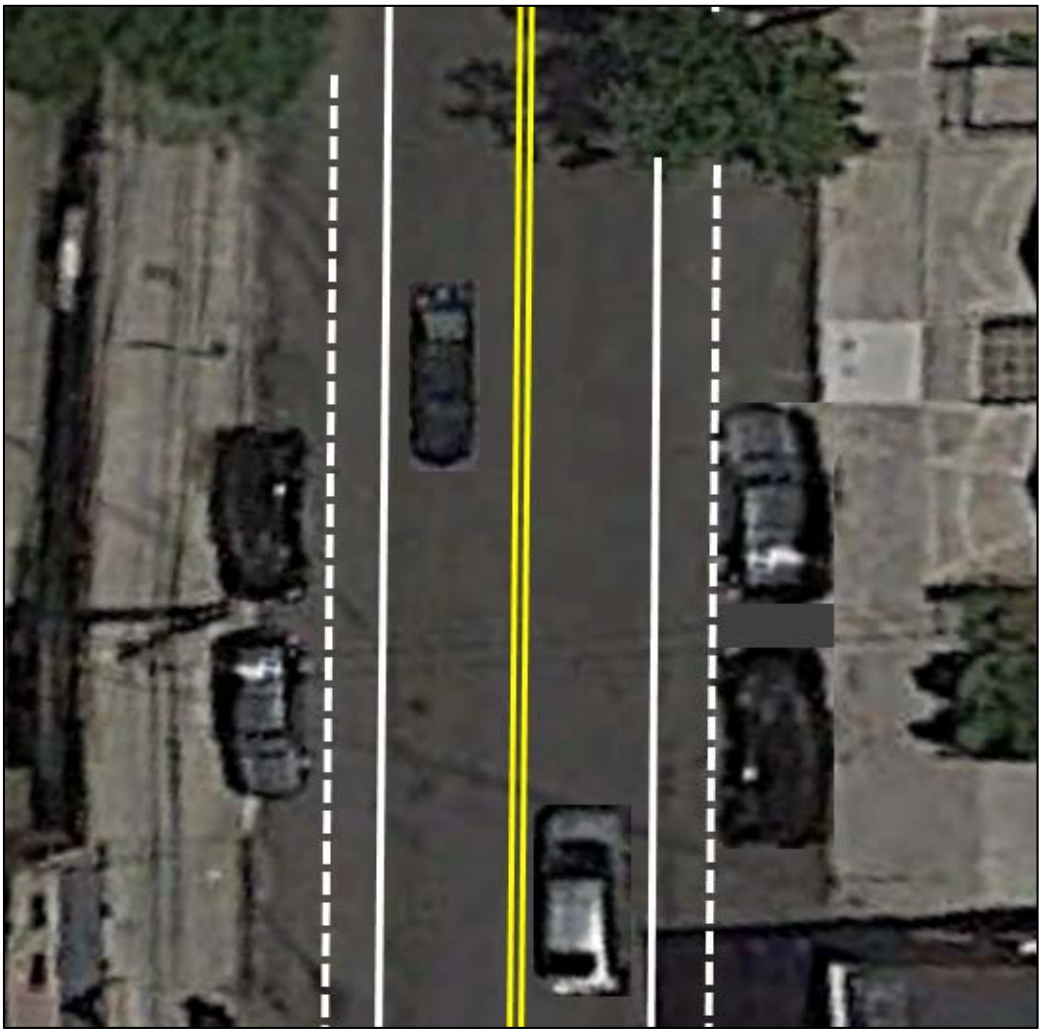
Recommended Cross Section of Broadway between intersections – Option B

Example of Option B bike lane (between travel lane and parking lane, no buffer)

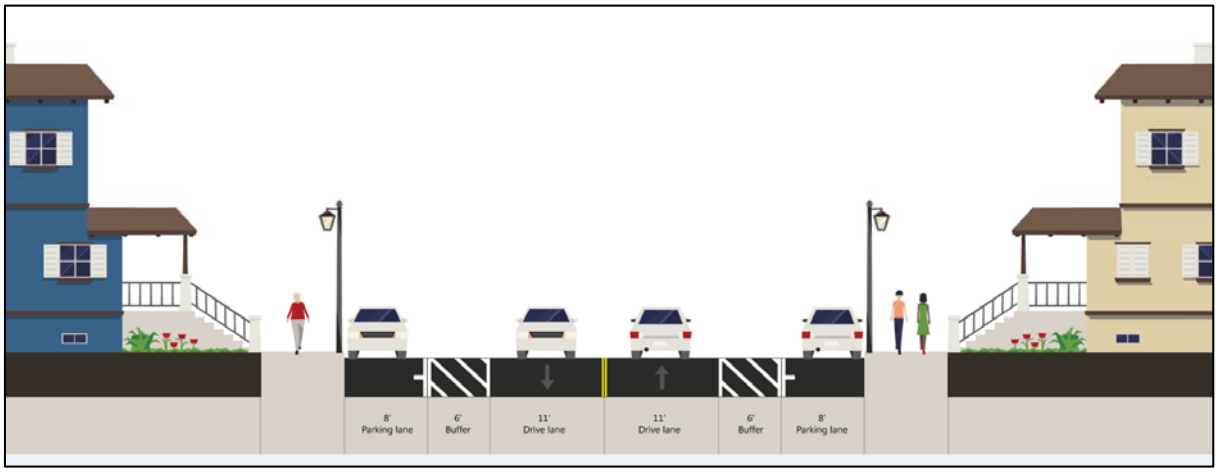
2.4. Mosholu Avenue

To accomplish the primary goal of reducing speed and calming traffic on Mosholu Avenue, it is recommended to restripe the road to reduce lane widths and emphasize context of a local, pedestrian friendly business district.

East of W. 256th Street, it is recommended that one 8-foot parking lane and one 11 to 12-foot through lane be provided in either direction, and that the remaining pavement width be restriped to provide a 5 to 6-foot buffer between parked cars and the through lanes on either side of the street. This buffer will make it safer for motorists to exit their vehicles and will also serve as a zone which will afford some protection to any cyclists on the corridor.



Recommended Reconfiguration of Mosholu Avenue East of W. 256th Street



Recommended Cross Section of Mosholu Avenue East of W. 256th Street

No changes are currently proposed on Mosholu Avenue between W. 256th Street and W. 254th Street, where one 8-foot parking lane and one 14-foot through lane is provided in either direction.

Potential future recommendation for Sharrows on Mosholu Avenue Southwest of W. 256th Street

These recommended improvements are consistent with the NYC Bike Map 2015 recommendations, which indicate that Broadway is designated as a "signed bike route" while both Riverdale Avenue and Mosholu avenue are identified as a "potential future bicycle route".

Further, should Mosholu Avenue be designated in the future as a bicycle route, sharrows (i.e., pavement markings indicating that cyclists share the road with motorists) could be installed on this section of the Avenue (as well as on W. 254th Street and W. 256th Street) and the buffers on Mosholu Avenue to the east of W 256th Street could be converted to bike lanes. Similarly, the buffers on Riverdale Avenue could also be converted to bike lanes if that corridor is designated in the future as a bicycle route. Combined with the bike lanes on Broadway, this would provide a significant extension of bicycle facilities from Van Cortlandt Park by 6035 Broadway, north to the City of Yonkers, as well as across Mosholu Avenue to Riverdale Avenue and north to the City of Yonkers along that corridor.

2.5. Safe Pedestrian Connections

Safe pedestrian connections will encourage residents to walk, increasing business and improving community vitality. Moreover, with thousands of school children using Riverdale Avenue, Mosholu and Broadway to reach their schools—attractive and safe connections are vital. Many such connections are outlined in this plan. Three connections that are not otherwise addressed in this plan are listed below.

A. Sidewalk on West 254th Street to Metro-North Railroad Station

As indicated in the existing conditions section of this study, sidewalks do not currently extend along W. 254th Street from just west of Arlington Avenue to Sycamore Avenue, a distance of approximately 1,000 feet, despite the fact that pedestrians and school children are regularly observed walking along this stretch of the roadway. In addition, the sidewalk that is present on the south side of the roadway, west of Sycamore Avenue, is in very poor condition.

West 254th Street is the community's main thoroughfare to the Metro North station, the SAR Academy, the northern entrance to Riverdale Park, Wave Hill and the forthcoming Hudson River Greenway. Creating a connection between these facilities and Riverdale Avenue would improve safety and quality of life. There are a number of quiet residential streets between Riverdale Avenue and the Hudson River where residents do not want sidewalks or other street improvements that would encourage more traffic. This concern is recognized in this Draft Plan. But West 254th Street presents a unique condition where the lack of a sidewalk harms both public safety and quality of life. Moreover, getting more residents walking will encourage foot traffic on Riverdale Avenue, which will improve business and vitality in the downtown.

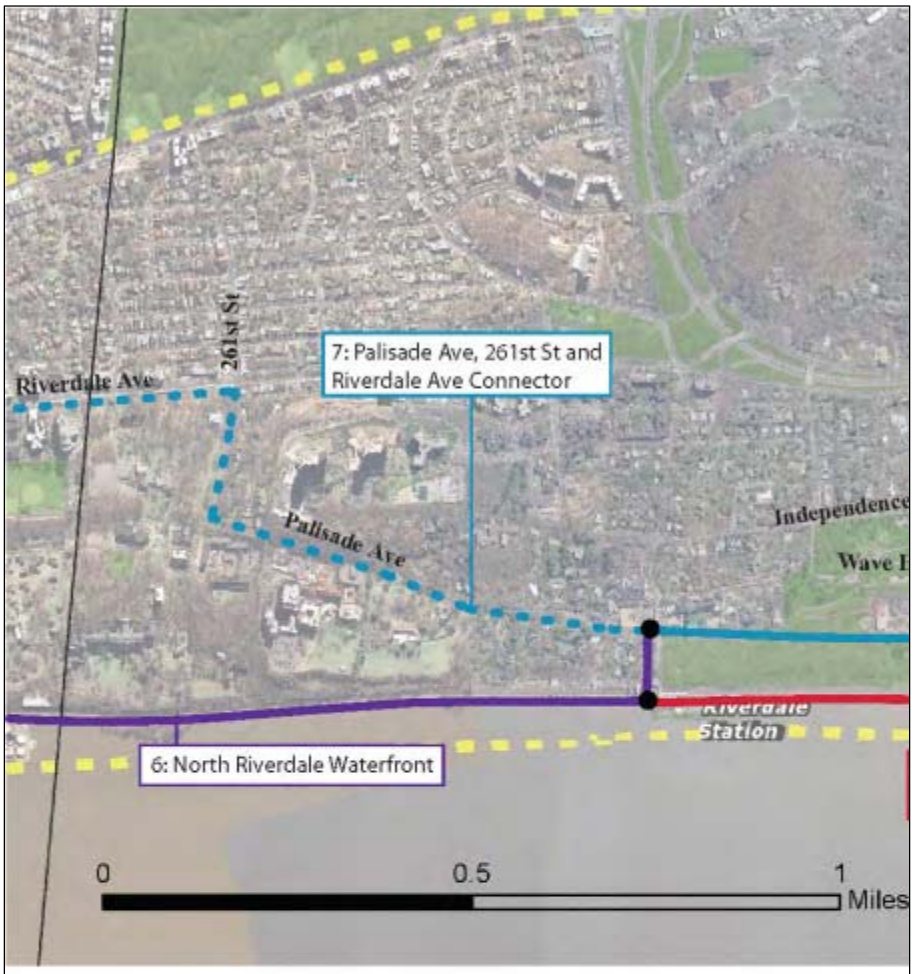
Missing sidewalks along W. 254th Street

As part of the Hudson River Valley Greenway Link Study's Medium-Term capital program, it is recommended that the existing sidewalk west of Sycamore Avenue be repaired and that the sidewalk system be extended along the north side of W. 254th Street to provide a safe pedestrian connection between Metro-North's Riverdale train station and the Riverdale Avenue corridor. This would require using the existing street bed as follows:

- provide an 8-foot parking lane on the south side of the street where parking is currently permitted,

- a 10-foot through lane in either direction, and
- a 5-foot wide sidewalk (reduced to a minimum of 3 feet where potential obstructions such as trees, utility poles and fire hydrants are present).

These proposed pedestrian safety modifications to W. 254th Street would not change traffic patterns and should not involve widening the roadway as there appears to be sufficient width to provide for two travel lanes and a sidewalk, as well as a parking lane in those areas where parking is permitted.



LEGEND

Short-term off-Street Link
Opportunity to create a Class 1 Physically Separated Greenway Path (3-5 years)

Short-term on-street Link - On-street route alternatives requiring improved bicycle accommodation, sidewalk construction and/or repair, streetscape enhancements and pedestrian safety improvements at intersections (1-3 years)

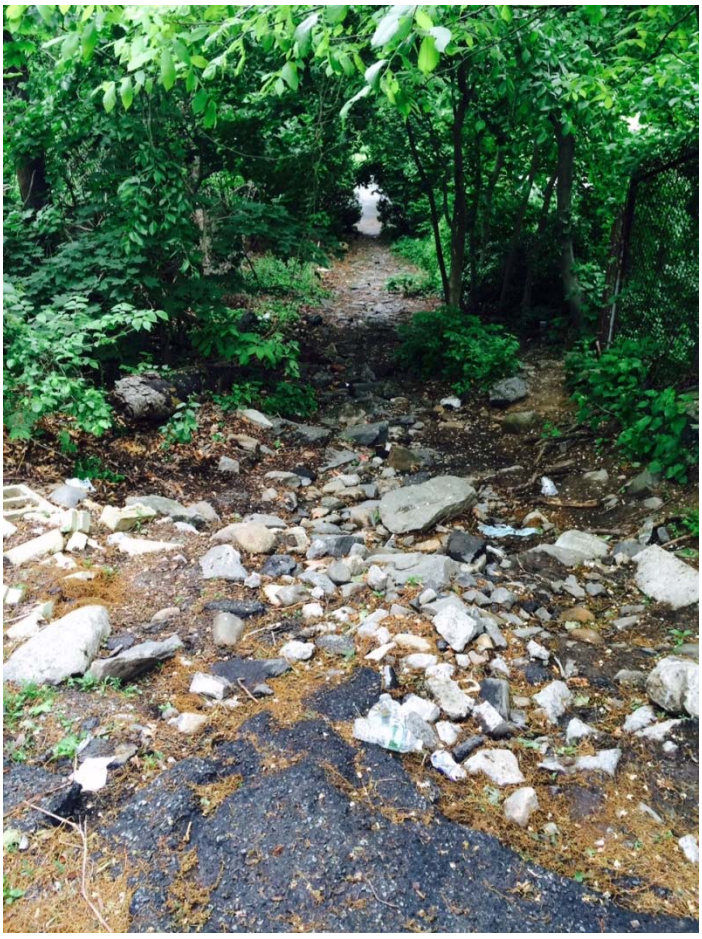
Medium-Term Link (5-10 years) - Capital Improvement Required

Long-Term Link (10+ years) - Future Enhancement Project

Hudson River Valley Greenway Link Study Recommendations

B. Independence Avenue Connecting Skyview and West 261st Street

A rocky, unsafe pedestrian path connects the northernmost paved portion of Independence Avenue to West 261st Street. Hundreds of residents of the Skyview cooperative use the path to access the bus stop on Riverdale Avenue, walk to Metro North or otherwise move around the community. Records of the Department of City Planning show that it is a publicly-owned, mapped portion of Independence Avenue. The City should immediately install an attractive sidewalk and lighting. Maintenance will be an issue and discussions should be undertaken with Skyview for that purpose.

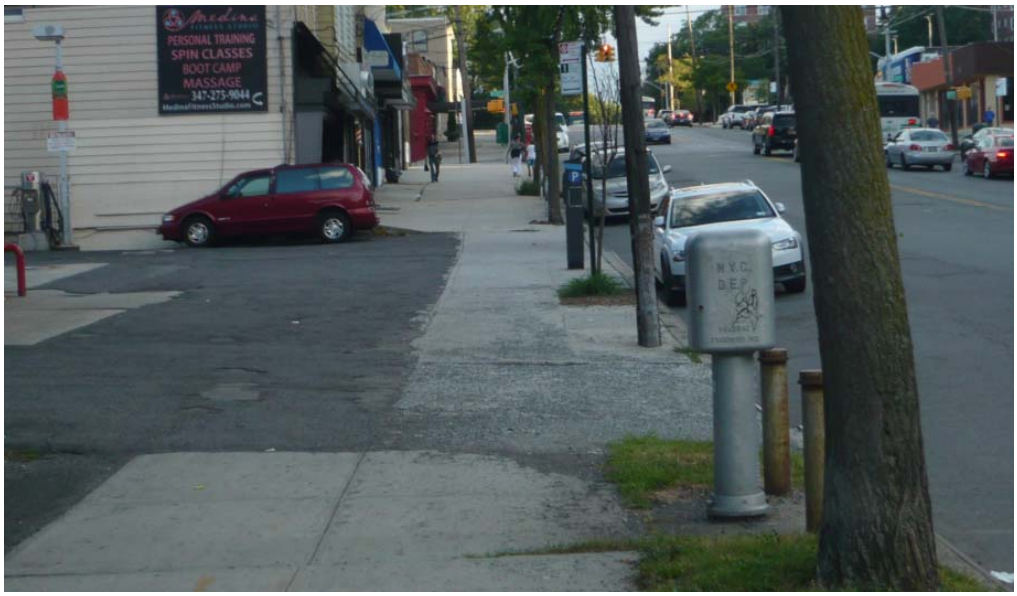


C. Netherland Avenue Connecting West 256th and West 254th Streets

Netherland Avenue passes through the two cooperative apartment complexes just to the west of Riverdale Avenue. At West 255th Street, a row of dumpsters and fencing prevents north south access. This route could be a vital and safe path to Metro North, the Riverdale YMHA and other amenities. The City should explore the creation of a safe sidewalk path in cooperation with neighboring cooperatives.

2.6. Sidewalk Repair

It is recommended that a detailed inventory be conducted of all sidewalks in the study area and that all sub-standard or deteriorating sidewalks, including the sidewalk on W. 254th Street west of Sycamore Avenue, should be repaired to provide a safe and aesthetically appealing pedestrian environment. It is further recommended that areas where the alignment of the sidewalk is not conducive to a seamless experience, such as along the east side of Riverdale Avenue in front of the gas station north of West 259th Street and across West 258th Street, be evaluated to determine how the continuity of the sidewalk may be improved.



Non-seamless sidewalk at gas station north of W. 259th Street

Non-seamless sidewalk W. 258th Street

Non-standard sidewalk at the southwest end of Mosholu Parkway

Examples of missing/deteriorating sidewalk which should be repaired

2.7. Crosswalk Restriping

It is recommended that all faded crosswalks be restriped and that the most active crosswalks be restriped as high-visibility crosswalks.

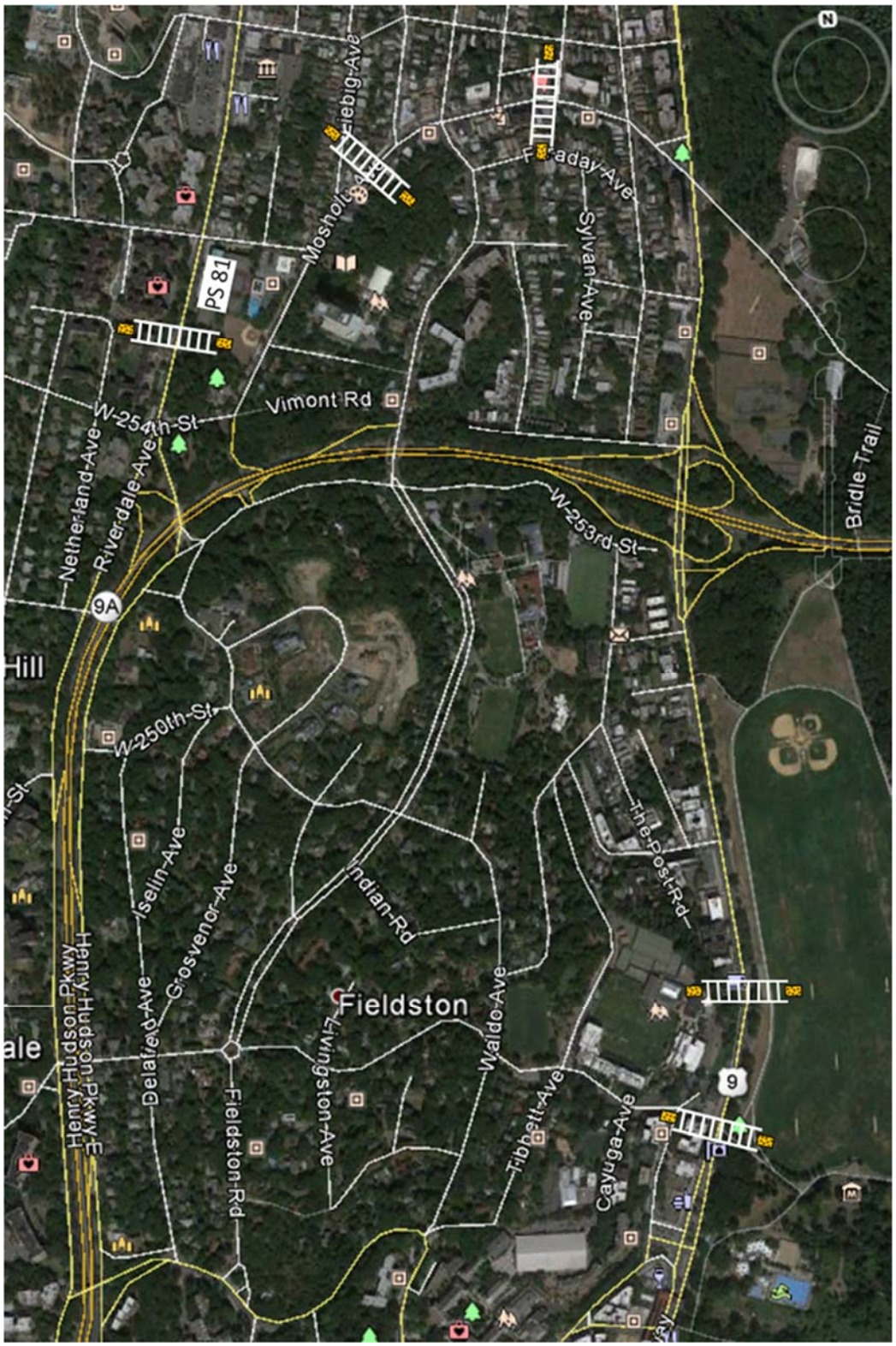
2.8. New Crosswalk Locations

To provide a safer pedestrian environment by focusing pedestrian crossing activity at discrete, suitable and more predictable locations, it is recommended that long distances between crosswalks on the corridor be eliminated by the creation of new crosswalks at the following locations:

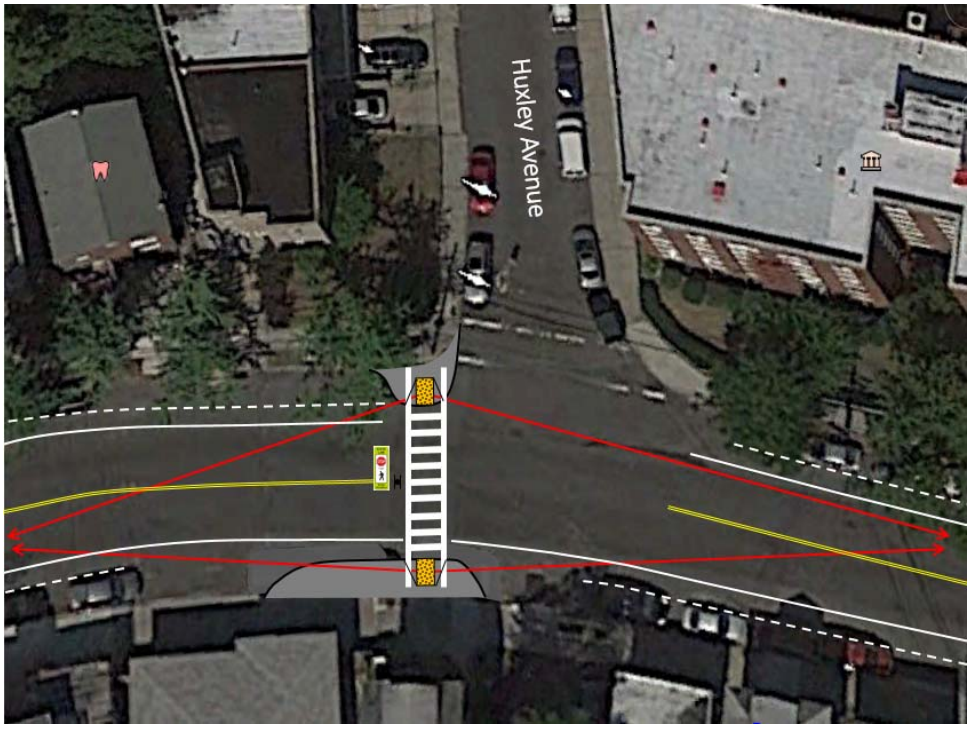
- Riverdale Avenue at the driveway exiting 5503 Riverdale Avenue (at the south end of the PS 81 buildings)
- Broadway at the entrance to Van Cortlandt Park opposite 6035 Broadway (the south end of the Parade Ground);
- Broadway at the entrance to Van Cortlandt Park opposite the Carrot Cake/Gleason's (the middle of the Parade Ground);
- Mosholu Avenue between Liebig Avenue and Tyndall Avenue;
- Mosholu Avenue at Huxley Avenue;

Cross walks should be as narrow as possible (using such techniques of bumpouts or pedestrian refuge islands) to facilitate safe crossing.

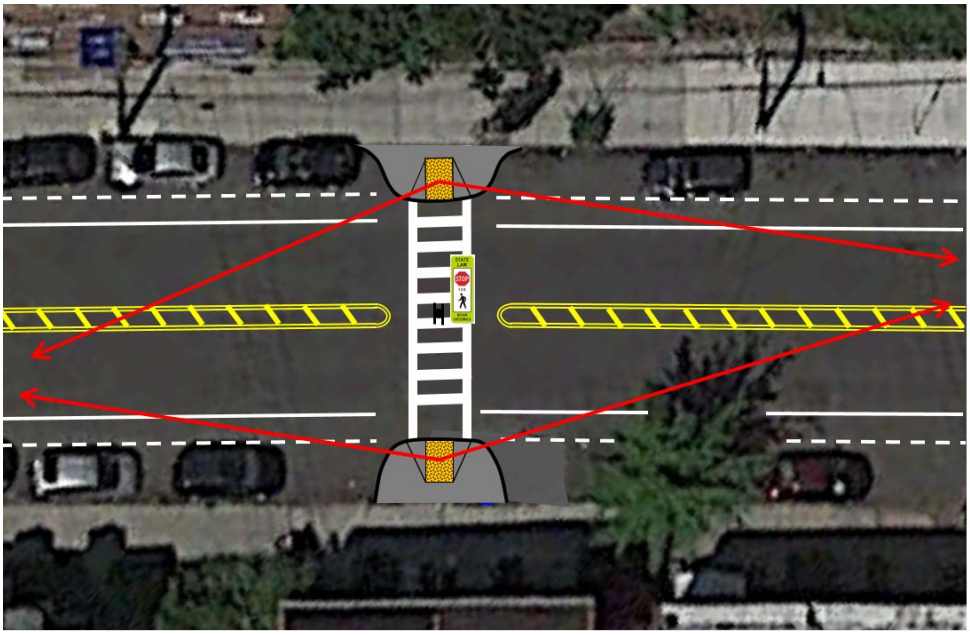
It is also recommended that the new crosswalks on Riverdale Avenue and Broadway be signalized while those on Mosholu Avenue be provided curb bump-outs to shorten the crosswalk distance, thereby reducing pedestrian exposure. NYCDOT typically requires all pedestrian crossings to be controlled by signalization; if the proposed unsignalized crossings on Mosholu Avenue are not approved by NYCDOT, then traffic signals should be considered for these locations since these are active pedestrian crossings. With the implementation of these measures, separation between crosswalks on all of the corridors will generally be less than 1,000 feet.



Recommended New Crosswalk Locations



Recommended Crosswalk on Mosholu Avenue at Huxley Avenue with curb bump-outs



Recommended Crosswalk on Mosholu Avenue between Tyndall Avenue and Liebig Avenue

Example of a curb bump-out

Before and after photos of Macombs Road, Bronx with reduction in number of travel lanes, added pedestrian safety island and curb bump-out to reduce pedestrian crossing distances

2.9. ADA-Crosswalk Compliance

It is recommended that a program be implemented to repair and upgrade all existing crosswalks so that they are ADA compliant. Depending on the location, this may require the following:

- The construction of curb ramps or relocation of crosswalk touchdown points so that curb ramps can be installed;
- The provision of ADA-compliant, domed, tactile pads;
- The repair of currently-compliant but deteriorating crosswalk ramps

These improvements were noted to be needed widely throughout all three corridors.

2.10. Pedestrian Countdown Signals

To provide pedestrians with more information, thereby facilitating pedestrian crossing of Broadway and Riverdale Avenue, it is recommended that a program be implemented to replace existing HAND/MAN pedestrian signal indications with COUNTDOWN pedestrian signal indications. As new traffic signal equipment is rolled out, it is recommended that ADA-compliant pedestrian push buttons be installed.

2.11. Pedestrian Refuge Areas

The pedestrian crossing on the south leg of Riverdale Avenue at the West 254th Street intersection is 80 feet long and requires pedestrians to cross the Henry Hudson Parkway off-ramp and Riverdale Avenue. It is recommended that the existing median be extended to provide a refuge island, as shown below.

Pedestrian refuge island on south leg of Riverdale Avenue

It is also recommended that the existing median on the south leg of Fieldston Road at the Mosholu Avenue intersection be extended to provide a refuge area for pedestrians crossing the 60-foot wide roadway, as shown below.

Pedestrian refuge island on south leg of Fieldston Road

2.12. Bus Turning at City Line

As noted in the Existing Conditions Section of this study, many bus lines terminate at the Yonkers-New York City Line on Riverdale Avenue and Broadway, requiring buses to make an awkward and potentially hazardous maneuver to turn around. In addition, the two northbound through travel lanes on Broadway and two southbound travel lanes on Riverdale Avenue at these locations have resulted in speeds that are significantly higher than the posted limits.

To reduce speeds, improve safety, facilitate bus turning and provide an identifiable gateway to each city, it is recommended that the Cities of New York and Yonkers consider the feasibility of installing modern roundabouts at these locations, as shown below. Besides safety benefits, traffic circles can add landscaping and signage opportunities.

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Potential Bus-Turnaround on Riverdale Avenue at Ellsworth Avenue

Potential Bus-Turnaround on Broadway at W. 262nd Street

2.13. Other In-street Pavement Markings

While waiting for the advancement of any of the between–the-curb improvements identified above, it is recommended that all existing pavement markings which are in a state of disrepair should be restriped.

2.14. Turn Prohibition Signs on Riverdale Avenue at W. 259th St

To supplement the existing truck prohibition signing on the east leg of W. 259th Street at Riverdale Avenue, it is recommended that turn prohibition signs for trucks be posted in each direction on Riverdale Avenue at that location as indicated below.

Add truck turning prohibition signs on Riverdale Avenue at W. 259th Street

2.15. Reconstruct Henry Hudson Parkway Ramps at Broadway

As shown below, to reduce vehicular speeds and provide a safer crossing of the ramps for pedestrians, it is recommended that the Henry Hudson Parkway ramps at Broadway be reconstructed with smaller radii. These improvements would also expand the useable area of the park slightly.

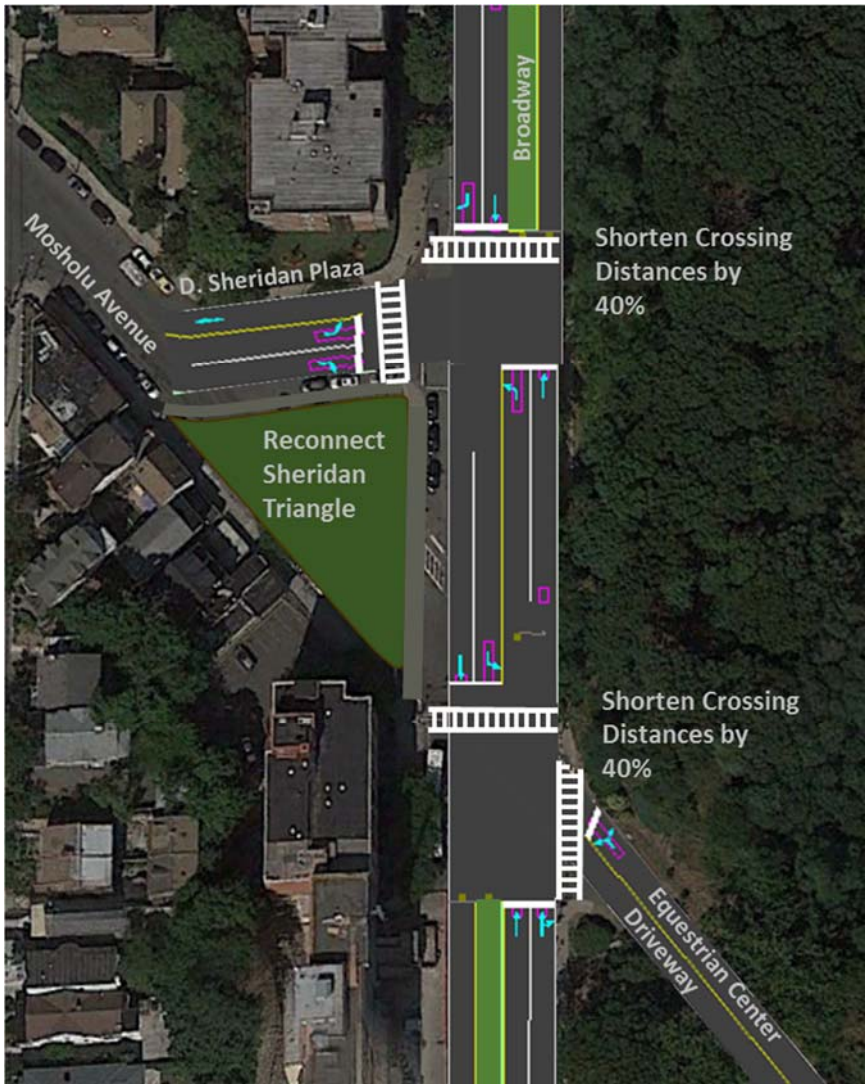
Recommended conceptual modification of Parkway ramps

2.16. Reconstruct the intersection of Broadway with Mosholu Avenue/David Sheridan Plaza

In response to two recent pedestrian fatalities at this intersection and to reduce crossing distances (and pedestrian exposure) by 40% at this skewed intersection, it is recommended that the intersection be reconfigured. The creation of a new playground across the street will turn this

location into a major new gateway into Van Cortlandt Park. Safer pedestrian conditions are therefore essential at this location on Broadway.

As shown below, Mosholu Avenue would be rerouted onto David Sheridan Plaza to connect to Broadway and a new signal, which would operate in conjunction with the existing signal at the driveway to the Equestrian Center, would be installed. The resulting crosswalks would be no more than 70-feet long, approximately 50 feet shorter than the current crosswalks. Further, with the squaring off of the Mosholu Avenue connection, the speed of turning vehicles would be reduced. This improvement is recommended regardless of whether or not the number of lanes for through traffic on Broadway is reduced.[2] The reconfiguration may create more parking spaces than the current design (particularly in angle parking were used)—an added benefit.



Conceptual reconfiguration of Mosholu Avenue at Broadway

[2] In the normalization of this intersection, it is a priority to make the crossing of the "Equestrian Center Driveway" safer with sidewalks, pedestrian bump outs and markings. This is a major access point to the Park.

Access to the three or four homes and businesses fronting on the new space must be accommodated. For example, Bronx Burger House, is a popular restaurant and bar at this location. There is a rare opportunity to create outdoor seating for this business in the new plaza, improving pedestrian safety, business and amenities for Van Cortlandt Park. The Association will continue to look ways to leverage these sorts of opportunities throughout the business district.

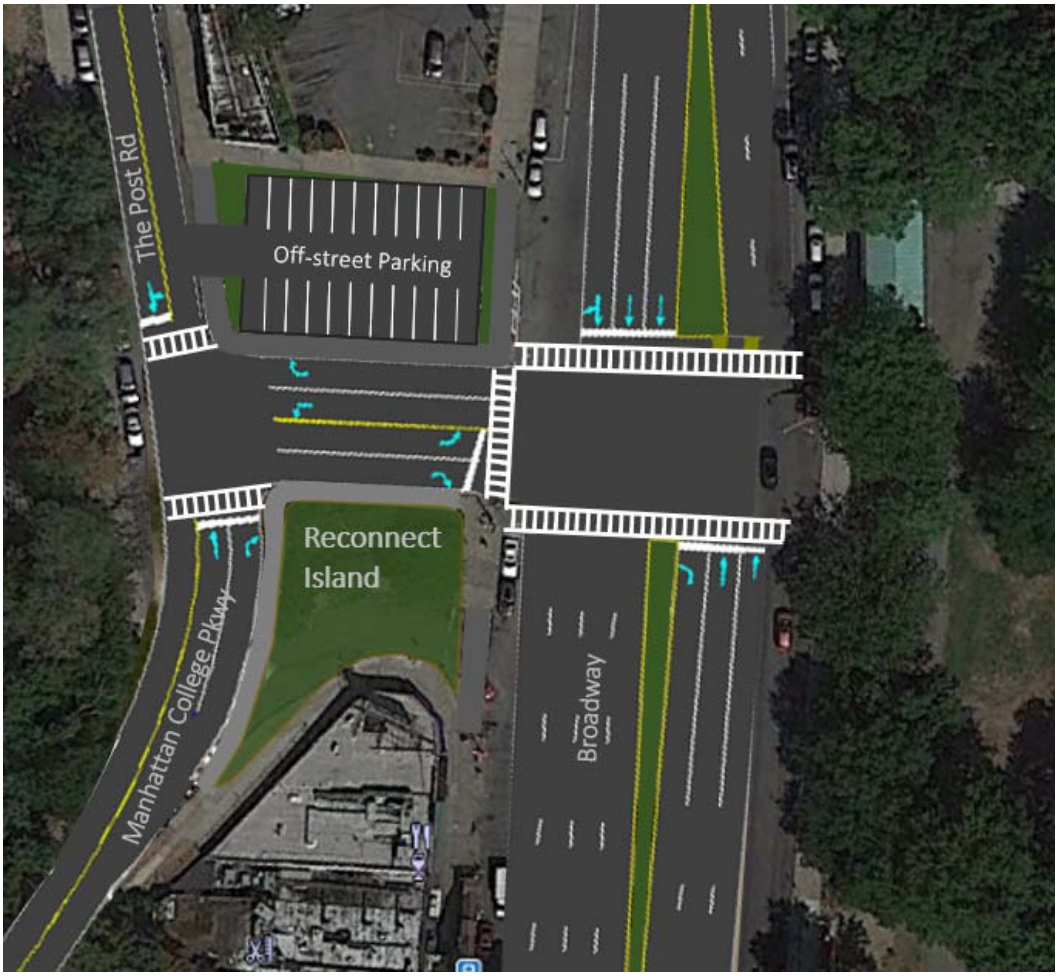
A recent intersection modification in which an angled intersection was realigned and the pedestrian crossing distances shortened is at the East Tremont Avenue and Silver Street intersection, as shown below.

Intersection modifications at East Tremont Avenue & Silver Street

2.17. Reconstruct the intersection of Broadway with Manhattan College Parkway

It is recommended that the City seek to leverage any future development in the immediate vicinity of the intersection of Broadway with Manhattan College Parkway to simplify the intersection, remove angled parking from the street and improve the quality of the open space at that corner. One possible conceptual reconfiguration of this intersection is shown below.

As with a new plaza at Mosholu Avenue and Broadway, this new plaza can accommodate outdoor seating that would serve commuters, diners at nearby restaurants or coffee shops and users of Van Cortlandt Park.



2.18 Protecting Side Streets

Some residents have expressed concern that traffic calming measures, particularly on Riverdale Avenue, will drive vehicles onto residential side streets in the "North Riverdale" community. The North Riverdale neighborhood between Riverdale Avenue and Broadway is largely comprised of narrow residential streets lined with single and two-family homes. These streets are not appropriate for commuter, bus and commercial traffic. While limiting and slowing traffic in this neighborhood is beyond the scope of this plan, the Association asks the NYC DOT to separately study three sets of improvements: (1) better-marked cross walks in all locations; (2) strategically placed speed bumps; and (3) creation of one-way streets in a few locations. This study should begin with West 259th and 261st Streets, which often host commercial cut-through traffic. The intersection of West 259th Street and Liebig is a particular concern as commercial traffic often (illegally) uses this street and the intersection and pedestrian crossings are poorly aligned.

3. Traffic Flows and Delays

3.1. Turn Lanes and Lights

Regardless of whether the lane reduction improvements recommended above are implemented, it is recommended that the traffic signals at the Broadway at Mosholu Avenue intersection be modified to incorporate northbound protected left-turn phases, which will better accommodate more cautious drivers and those with significantly below average perception-reaction times.

In the future, should new signals be installed in conjunction with the creation of turn lanes on Broadway or Riverdale Avenue, it is recommended that protected left-turn phases be incorporated in the new signals to better accommodate all motorists.

3.2. Traffic Signal Controllers

In the future, as new signal equipment is rolled out, it is recommended that actuation and signal coordination be included in the signal controller and communication infrastructure to reduce delays/greenhouse gas emissions and to manage the progression of traffic along the corridors to control speeding.

3.3. School Bus and Loading Zone Management

Approximately 1,500 children attend schools located on Riverdale Avenue and another 1,500 students attend the College of Mount Saint Vincent. Little investment has been made in making Riverdale Avenue safe or attractive for these schools or safe for the students, parents and staff relying on the Street. Each of the improvements called for in this plan would address these short comings.

At P.S. 81 and Saint Margaret's of Cortona School, specific improvements should be made to Riverdale Avenue to facilitate pick-up and drop-off times. It is recommended that the visibility of school drop-off and pick-up areas be raised and that enforcement of regulations to provide a safer school environment be given priority. Measures could include the following:

- Pavement markings in pick-up/drop off zones.
- Expanded hours of no parking during these times.
- Exclusive pedestrian signal phasing and countdown pedestrian signal indications;
- The establishment of school speed zones with lower speed limits and flashing beacons.

With regard to school loading, regulations could expand no-parking zones during the hours of loading activity (7:30 to 9:00 a.m. and 2:30 to 4:00 p.m., typically for schools, and before 11:00 a.m., typically for commercial loading activity). For example, along the east side of Riverdale Avenue at St. Margaret of Cortona School (south of W. 260th Street), the current 1-hour parking limit could be modified to provide a no-parking zone during the peak school drop-off and pick-up periods. Pavement markings and signage are recommended to delineate the no-parking zones.

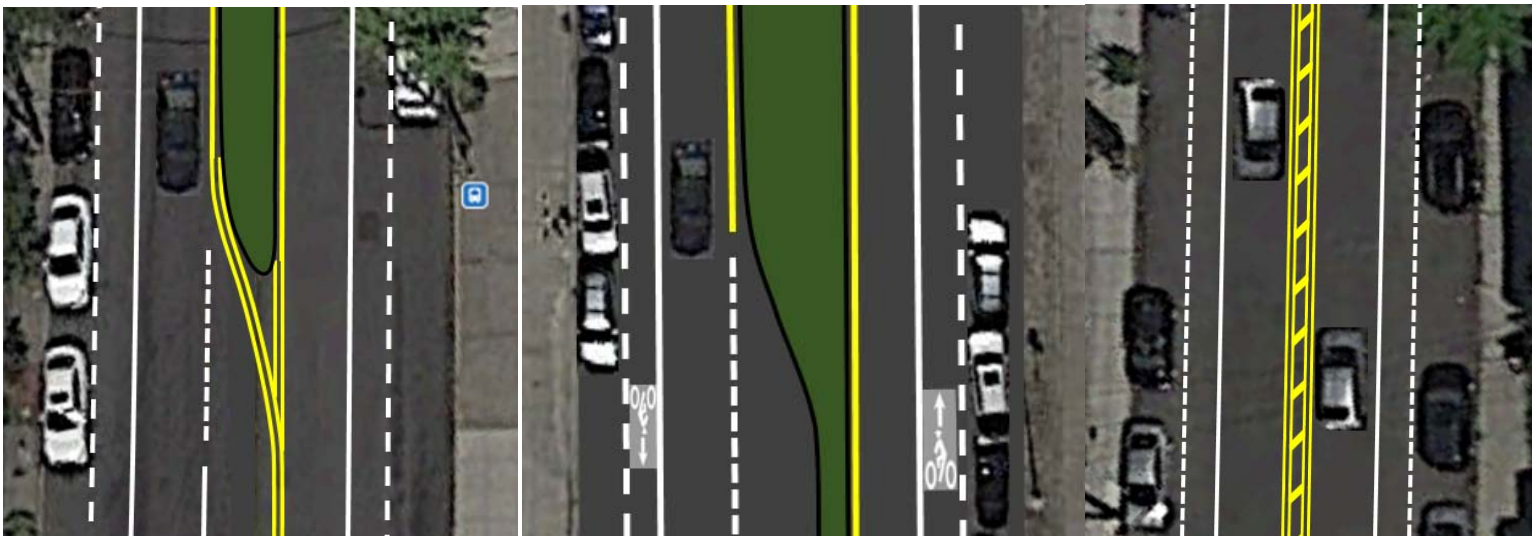
Long term, the creation of loading and unloading zones could be established on side streets (West 256th and West 260th). West 260th is already closed at certain times of the day to through traffic for safety reasons.

Recommend increased visibility of school drop-off/pick-up area on Riverdale Avenue in front of St. Margaret of Cortona School

4. Parking Safety

4.1. Parking Buffer

As part of the overall strategy for traffic calming along the corridors, it is recommended that buffer spaces be provided between the parking lanes and the through lanes as per the alternatives described previously (and shown below). These buffers would make it safer for motorists to enter and exit their vehicles.



Riverdale Avenue ***Broadway*** ***Mosholu Avenue***

4.2. Parking Restrictions

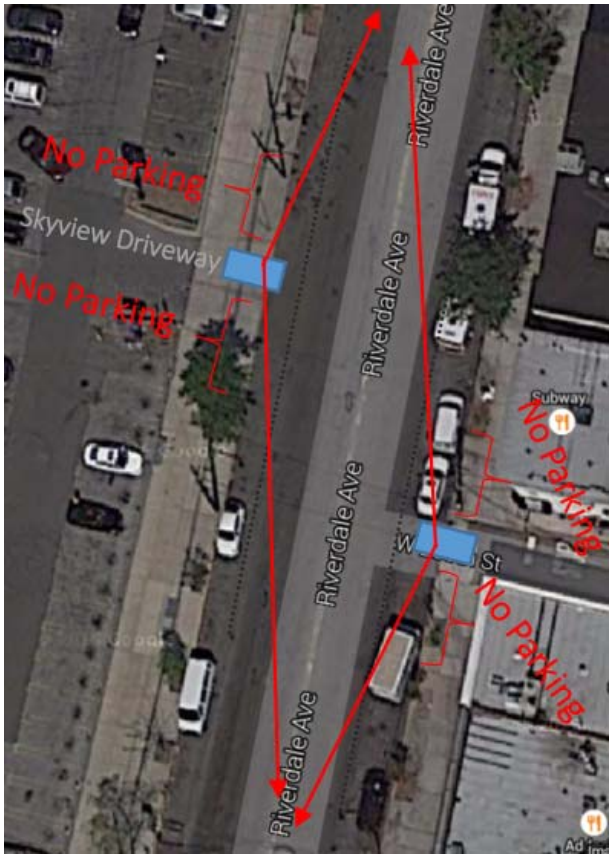
The proposed restriping option for Broadway to provide bike lanes between parked cars and through moving vehicles, and similarly with the proposed buffer lanes on Riverdale Avenue and Mosholu Avenue, will improve sightlines for vehicles at unsignalized intersections and driveways. In total, the safety improvements would remove 13 parking spaces around the downtown. But the Association has a a goal of no net loss of parking spaces. Turn-in parking in a few locations, (private) improvements to Skyview Shopping Center and other improvements can add spaces.

Should these improvements not be advanced (or even if they are), it is recommended that the City consider improving sightlines at the unsignalized intersections listed below by eliminating one or two parking spaces adjacent to the intersection on:

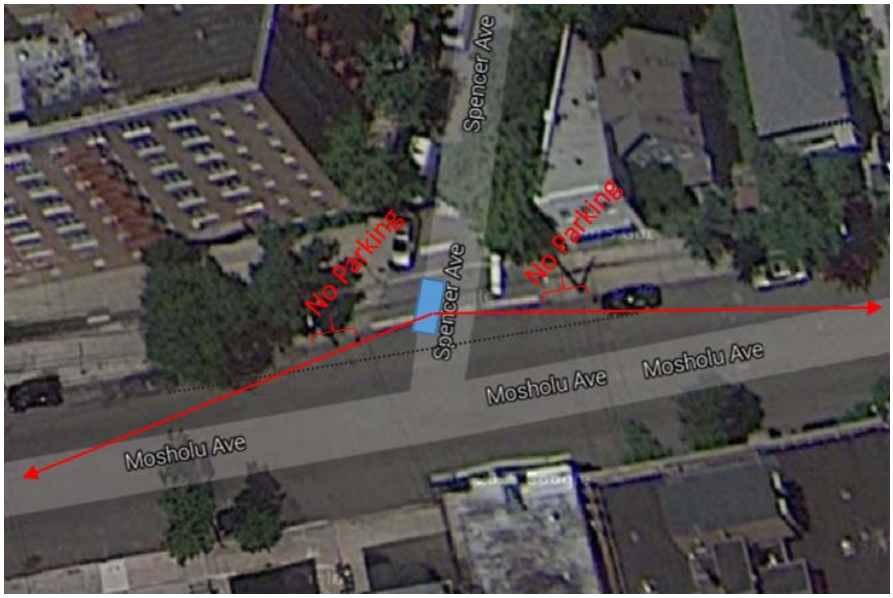
Broadway at W. 252nd Street (- 1 parking space)

Broadway at W. 256th Street (- 1 parking space)

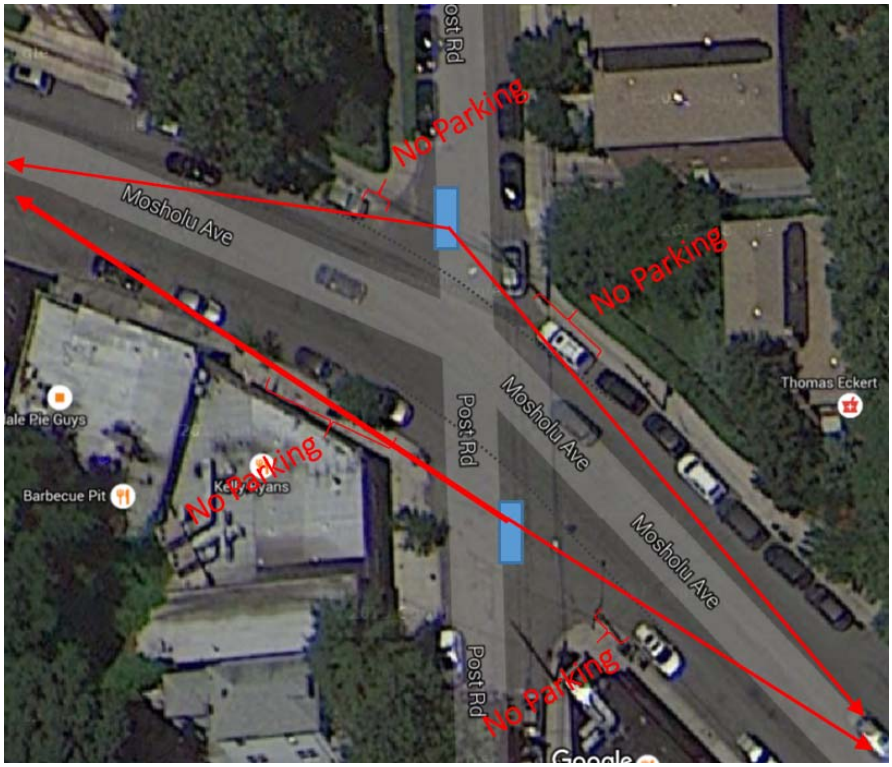
Riverdale Avenue at the driveway exiting 5503 (- 2 parking spaces)



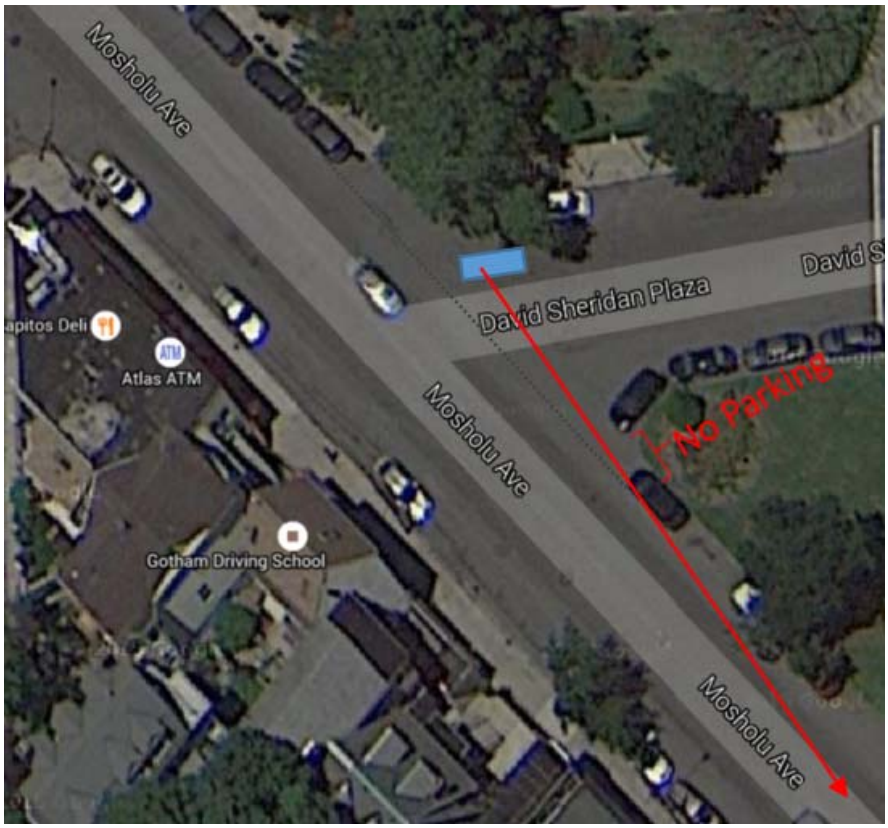
Riverdale Avenue at W. 258th Street (- 4 parking spaces) and Riverdale Avenue at the unsignalized Sky View Driveway (- 3 parking spaces)



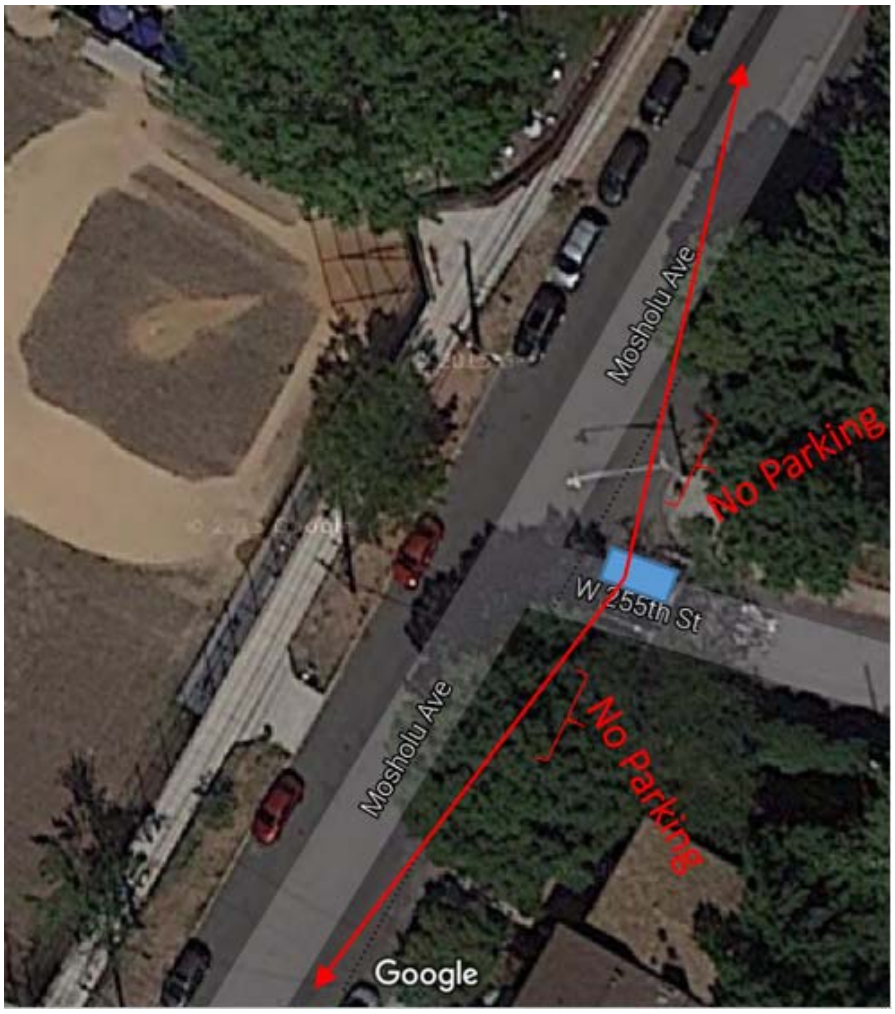
Mosholu Avenue at Spencer Avenue (- 2 parking spaces)



Mosholu Avenue at Post Road (- 6 parking spaces)



Mosholu Avenue at David Sheridan Plaza (- 2 parking spaces)



Mosholu Avenue at W. 255th Street (- 3 parking spaces)

In particular, at the intersection of Post Road with Mosholu Avenue, it is recommended that sight lines to the left on Mosholu Avenue from the northbound Post Road approach be improved.

5. Greenery and Aesthetics

5.1. Raised, Planted Street Median

In addition to improving the pedestrian safety along portions of the Broadway and Riverdale corridors, a planted median within the roadway would complement the green elements that exist, including Van Cortlandt Park. These enhancements would make the corridor more aesthetically pleasing, and more environmentally sustainable. They can also be designed to reduce and partially treat stormwater runoff, thereby helping to reduce the potential for flooding and improving overall water quality.

Example of landscaped median on Boerum Place, Brooklyn

Example of landscaped median on Unionport Rd., Bronx

Example of Landscaped Median

5.2. Restoration of median on Fieldston Road at Mosholu Avenue

The curbs and plantings in the median on Fieldston Road, an important residential street and gateway to the business district, are in deteriorated condition. It is recommended that some additional landscaping be considered for the median on Fieldston Road at Mosholu Avenue to provide some depth and color to the neighborhood at varying times of the year. As noted previously, it is also recommended that the median be extended and a pedestrian refuge area be provided.

Existing Median on Fieldston Road at Mosholu Avenue

5.3. Pocket Parks and Placemaking

It is recommended that the City consider enhancing the public spaces which are integral to each of the corridors. Cooperation with local business can result in outdoor seating and dining options in these and other locations. The spaces would remain under the jurisdiction of NYC DOT or as "green streets" under the oversight of NYC Parks and NYC DOT. Private maintenance arrangements (with the Association or adjacent businesses) are encouraged to prevent litter and loitering and maintain plantings.[3] Examples of locations where public spaces could be enhanced through the addition of benches, art, and additional landscaping include:

Sample Pocket Park

David Sheridan Parkway at Broadway

[3] Some residents have expressed concern that residents of "Riverdale Manor" would loiter in the new public space at Mosholu and Broadway, which is already a problem near that facility. Design and maintenance arrangements must address this concern.

Manhattan College Parkway at Broadway

Southeast Corner of Riverdale Avenue's intersection with the Sky View Shopping Center Signalized Driveway

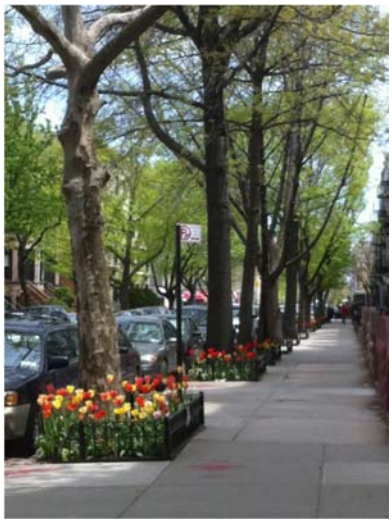
5.4. Environmentally Sustainable and Aesthetically Pleasing Tree Pits

Improvements to tree pits should proceed in three phases. First, a program of regular weeding and trash removal and replacement of the numerous dead street trees should be implemented, which the Association is already exploring for 2016. Second, along Riverdale Avenue and Mosholu Avenue, tree pits should be expanded to the current standard size of 5x10 feet (where possible) and tree guards installed to facilitate low-maintenance plantings and upkeep.

Third, DEP and NYC Parks must explore locations where "green infrastructure" can be implemented to improve appearance and capture stormwater. It is recommended that any upgrade of the streetscape landscaping incorporate urban bioretention best practices in landscaping beds, tree pits, bioswales and plazas, or other features. Consistent with New York City's Green Infrastructure Program, as led by the Department of Environmental Protection (DEP), a uniform system of tree guards, planted tree pits and expanded tree pits (bioswales) should be implemented. The Green Infrastructure Program designs, constructs and maintains a variety of sustainable green infrastructure projects on City owned property such as streets and sidewalks. Green infrastructure collects and manages stormwater runoff from impervious surfaces and directs the runoff to engineered systems that typically feature soils, stones and vegetation. This reduces the amount of runoff entering the City's waterbodies as well as ponding on streets.

Examples of Bioswales (enhanced tree pits)

Examples of Planted Tree Pits



It is recommended that existing tree pits be upgraded and new tree pits be installed in areas lacking street trees.

Bioswales should be considered for implementation at the following locations:

- Riverdale Avenue
  - West side, between W. 259th Street and W. 260th Street;
  - East and west sides, between Sky View Shopping Center Driveway and W. 259th Street
- Broadway
  - East and west sides, between W. 260th Street and W. 259th Street
  - East and west sides, between W. 254th Street and Mosholu Avenue
  - East side, along Van Cortlandt Park frontage between W. 242nd Street and W. 252nd Street
  - West side, between W. 251st Street and Manhattan College Parkway
- Mosholu Avenue
  - West side, along Vinmont Veteran Park frontage

- East and west sides, between Liebig Avenue and Spencer Avenue
- East side, between Huxley Avenue and Broadway

The NYCDEP's standard dimensions for bioswales are 5-feet wide with lengths of either 10-feet, 15-feet or 20-feet. The DEP will determine the location of a bioswale based on several factors including pedestrian and vehicle clearances, proximity to bus stops, impacts on parking, and proximity to existing utilities.

5.5. Street Furniture

It is recommended that existing, deteriorating street furniture be replaced and supplemented as part of an on-going effort to make the corridors more appealing to users. Some elements that should be considered for inclusion are:

- Benches,
- Tables,
- Art,
- Bike racks,
- Trash/recycling receptacles.

NYCDOT provides design and siting guidelines for street furniture in its *Street Design Manual (2013, Second Edition)*. Some examples of the City's street furniture are provided below.

City bench, at bus stops without shelters

Recycling waste basket

Bicycle shelter

Examples of Street Treatments with Benches, Trash Receptacles, Bike Racks, etc.

5.6. Bus Shelters

It is recommended that bus shelters of the same architectural vernacular as those that presently exist be added to the remaining southbound stops along the corridors and to those where Bee-Line buses stop in the northbound direction on Broadway.

Existing Bus Shelter on Riverdale Avenue

5.7. Bus Pads

It is recommended that existing concrete bus pads be repaired so that they continue to serve their intended purpose and to improve the aesthetics of the corridor. At the southbound locations on Riverdale Avenue at West 256th and 254th streets the bus pads may need to be increased by one

bus length to prevent the congestions that currently exists as buses "pile up" and double park during morning rush hours.

Existing Bus Pad ***Improved Bus Pad***

5.8. Historic/Antique Street Lights

As part of any overall corridor makeover on Riverdale Avenue, Mosholu Avenue or Broadway, the City should plan for a uniform series of street lights. The lack of buried power lines on Riverdale Avenue and Mosholu may complicate the installation of such lights. If so, in designing a raised median, the design process should consider whether a utility line can be installed in the median to allow a uniform series of lights in the center of the street.

Examples of historic-style street lighting fixtures (Source: NYCDOT)

5.9. Power Lines

Numerous public comments have called for the burying of unattractive overhead power. Many communities have buried lines to reduce the risk of power outages during storms and improve the appearance of business districts. Consolidated Edison Inc. owns and maintains these power lines and will often only carry out a burying project if other public funds are made available for this purpose. The Association calls for the City and Con Ed to work together towards this goal and it is considered a "long term" component of this Plan to be carried out over the next 10 years.

In the interim, Con Ed must replace utility poles that are bending and dipping under the weight of the power lines. Moreover, in designing any raised medians, NYC DOT should accommodate space for utility lines. Both these goals are considered intermediate goals to be carried out over the next 2-3 years.

5.10. Attractive signage including gateway signage

It is recommended that the City work with the local community and business organizations to develop a cohesive, attractive and informative wayfinding, place identification and event notification signage plan.

Signage will help orient people, create a sense of place in the downtown business district and encourage residents to patronize local stores. Wayfinding signage should also identify landmarks, including the Metro-North Railroad station, Riverdale Park, Van Cortlandt Park and the College of Mount Saint Vincent. A gateway sign, which is common in many distinct neighborhoods in outerboroughs, is also important in welcoming visitors to the neighborhood.

Locations for such signs include (1) exits from the Henry Hudson Parkway at West 253rd/West 254th Streets and (2) at the City Line on Broadway and Riverdale Avenue..

Welcome signage in Ozone Park, Queens

5.11. Stormwater Management

A number of comments have been received about stormwater problems and inadequate storm sewer capacity, particularly on Mosholu Avenue. This issue is outside the scope of this Plan. But the Association calls on DEP to address calls for upgrading the capacity to storm sewers. In the interim, the addition of more landscaping in the business district should help capture more runoff before it enters the sewer system.

6. Maintenance

Capital improvements called for in this Plan fall into three categories: (A) improvements that NYC agencies can and should maintain through the normal course of operations; (B) improvements that adjacent property owners are required to maintain; and (C) improvements that must be maintained with private resources. Broadway is addressed separately in section (D) below.

A. City Responsibilities

The Association believes that maintenance of public spaces is primarily the job of New York City. The Association and other community leaders must become a forceful advocate for the City's annual maintenance of streetscape and safety improvements called for in this Plan. They include the following:

NYC DOT

- Regular paving of streets.
- Re-painting cross walks, medians, parking lanes, parking buffers.
- Regular paving or painting of specially marked bus loading zones and school pick-up and drop-off zones.
- Regular paving of special cross walks, neck-downs and pedestrian islands

NYC Parks

- Street tree replacement and pruning
- Maintenance of "green street" landscaped medians and plazas
- Maintenance of Vinmont Park, Van Cortlandt Park and their perimeters

NYC DEP

- Replacement and repair of rain gardens and bioswales
- Upgrades to storm sewers

B. Private Owners – Help Owners Care for Their Properties

Unfortunately, a limited number of private property owners have not done a regular job keeping properties in good repair. The Association must also serve as an advocate for better maintenance of private property as well. Needs include the following:

- sidewalks
- façades
- security gates
- signage
- awnings
- fencing
- retaining walls
- graffiti removal

To that end, some communities have developed small loan and grant programs to encourage positive work in this regard. The Association will explore creation of such a program with elected officials.

C. Streetscape Improvements — Grow the Association

A number of the improvements called for in this Plan are beyond the scope of normal NYC operations and will likely require maintenance by private resources in order to remain in first-class condition. The improvements that would require private maintenance include the following:

- The three landscaped medians/pocket parks on Riverdale Avenue
- Traffic circles, including at the city line on Riverdale Avenue and Broadway
- Landscaped tree pits
- Tree guards (to supplement NYC DEP)
- Rain Gardens and bioswales
- "Welcome to Riverdale" Signage
- Banners

It is estimated that providing first-class maintenance of these new facilities on Riverdale Avenue and Mosholu Avenue will require *$50,000 annually*. Maintenance on Broadway is addressed

below. The Association is actively planning to assume that role and has considered three options.

BID. In most business districts where supplemental services are desired, businesses form a business improvements district ("BID") where a small property tax surcharge is imposed by the New York City Council that is used by a nonprofit BID corporation to clean streets, maintain special plantings, provide security and advocate for the community. There are presently 72 BIDs in New York City (in all five boroughs) providing over $100,000,000 in supplemental public services. Most BIDs are funded by property tax surcharges on commercial properties although the BID law permits residential properties to be taxed as well. The quality of services provided varies tremendously as do the budgets, which range from a few hundred thousands of dollars annually (Kingsbridge BID) to millions (Bryant Park Corporation). After much reflection, the Association has decided that the commercial district in Riverdale is not ready for a BID in 2016. Moreover, given the modest number of businesses in the potential district, it is likely that residential properties would need to contribute funds as well. More community outreach is needed to explore this idea.

Fundraising. The Association believes it can raise funds for the maintenance through the following three methods: (1) hosting annual events; (2) seeking annual funding commitments from local nonprofit (e.g., colleges) and for profit (e.g., cooperative apartment buildings); and (3) annual funding commitments from elected officials. Funding would be collected by the Association for the sole purpose of hiring an expert landscaping company to maintain the improvements. This option has the advantage of being fully under the control of the Association's board of directors. But it will require significant and consistent annual fundraising.

Partnership with a Local Institution: The Association is also considering partnership with a local institution that has the staff to carry out the maintenance described above, likely a college. In this case, the college would designate full-time staff to carry out the maintenance described above. The Association would raise a designated portion of the staff salaries as described above (annual events, local contributions, elected officials). But the local institution would employ the staff and provide necessary benefits and structure for the program. This option has the advantage of reducing the amount that must be raised annually and freeing the Association from having any staff (for which it is not presently equipped). But the Association would not have full control over the maintenance work.

D. Broadway—Partners with the Association

Broadway is an essential part of the community, the main boulevard for many residents and the gateway to Van Cortlandt Park. The Association does not believe, however, that it will have the capacity in the near term to maintain improvements on Broadway that are (a) called for in this Plan, (b) called for in the VCP 2034 Master Plan or (c) currently being studied by NYC DOT. The NYC DOT and NYC Parks must, as noted above, maintain the normal improvements that will be implemented, including pavement, striping and medians. But the Association also supports public/private partnerships for Van Cortlandt Park that could assume maintenance of some improvements. In the vicinity of West 242nd Street, Manhattan College and other private schools can become maintenance partners.

7. Non-Capital Strategies for Revitalizing the Business District—Create a Sense of Place

"Public art can express civic values, enhance the environment, transform a landscape, heighten our awareness, or question our assumptions. Placed in a public site, this art is therefore for everyone, a form of collective community expression -- from the once celebrated but now unrecognized general on a horse to the abstract sculpture that may baffle the passer-by on first glance." Penny Balkin Bach (contemporary American), art administrator.

In addition to physical improvements to downtown business districts, communities must also develop other strategies for attracting residents and creating a "sense of place." A strong community organization such as the Association, working with KRVDC, will be needed to spear-head these efforts in partnership with local institutions. On occasion, outside expertise will be needed. One such expert is the Project for Public Spaces, a NYC-based nonprofit that regularly engages in these kinds of partnerships with community organizations. It uses the following kinds of strategies to get residents interested in their downtowns and other public spaces:

- Temporary or rotating public art displays.
- Workshops with residents to develop consensus on the types of businesses, improvements and events that are desired.
- Temporary, pop-up public spaces for gatherings.
- Temporary markets, fairs and events designed to re-ignite interest in the downtown.
- Facilitating outdoor seating, including related to local bars and restaurants.
- Farmers markets or stands. For example, the Friends of Van Cortlandt Park annually runs a farm-stand operated by local school children. New ourtdoor spaces at Broadway and Mosholu and Manhattan College Parkway would be good locations.

City and State funding may be available for these programs. For example, the NYC Department of Small Business Services has a Neighborhood Challenge Grant that awards $50,000 to $100,000

annually to creative local planning efforts like the present one. The Governor's New York City Regional Economic Development Council makes similar awards at the state level.

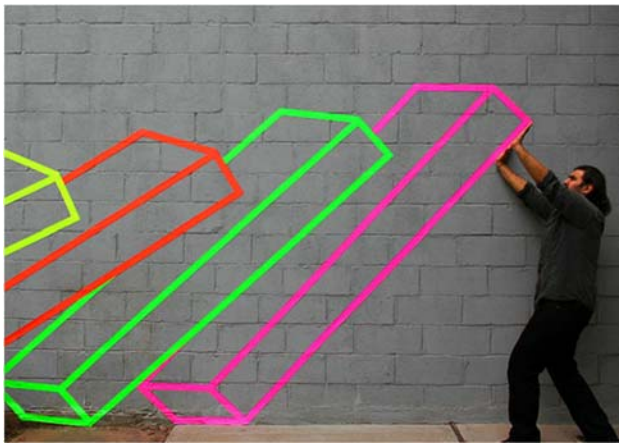
These and other events will be primarily focused on Riverdale Avenue. . With the traffic-calming improvements called for in this Plan, these kinds of place-making activities can start to take place. The Association must also develop strong relationships with neighborhood stakeholders including public and private educational institutions, park-advocacy organizations, nonprofits and others.

To build support for the programs considered above, the Association will explore the following steps in the short term (2016, 2017):

- Invite local nonprofit organizations to become partners in this Plan.
- Continue to host an early fall street fair on Riverdale Avenue.
- Raise funds to hire an expert partner (such as the Project for Public Spaces) to develop place-making activities in Riverdale.
- Install banners at key locations.
- Install "Welcome to Riverdale", "Shopping District" and similar signage at key entry points to the business district.[4]
- Install planters at key locations and improve care of trees and tree pits.
- Seek funding for temporary art exhibitions.

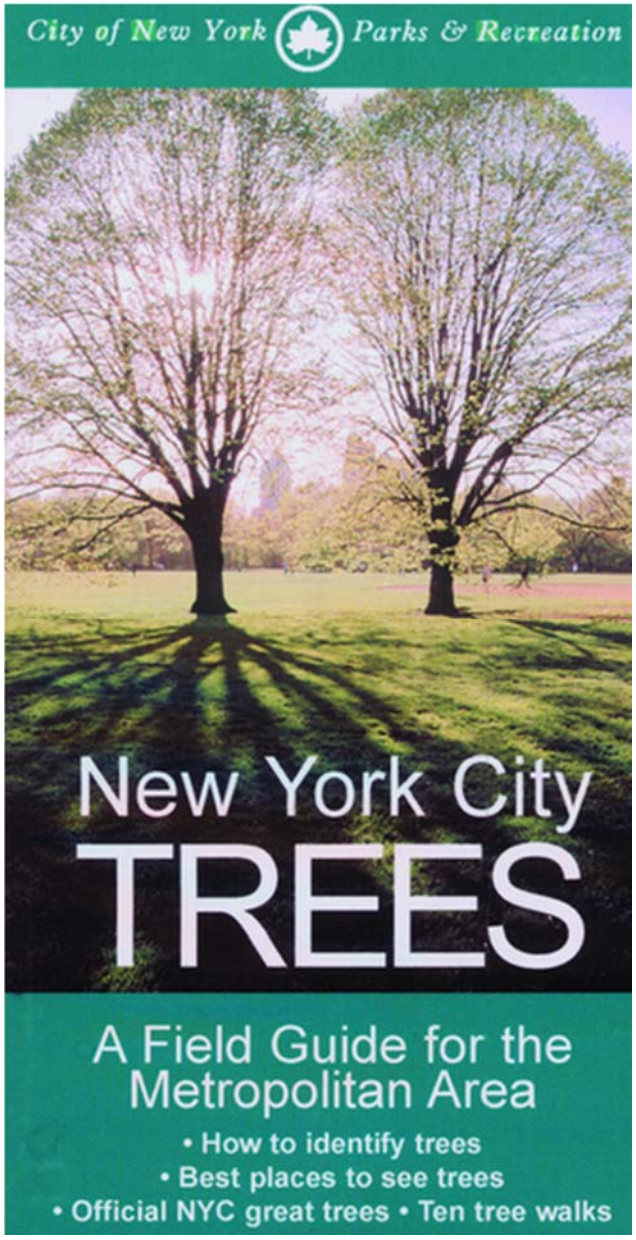
[4] Locations may include (a) Riverdale Avenue and City Line; (b) Riverdale Avenue and West 254th Street; (c) Mosholu Avenue and Broadway; (d) Broadway and the City Line; and (e) exits from the Henry Hudson Parkway at West 253rd/254th Street

Street art ranges from elaborate and permanent to simple and temporary. The possibilities are endless but a strong plan for maintenance will be required.[5]



[5] Numerous examples of public art programs (some exceptionally creative) can be found at http://www.boredpanda.com/interactive-street-art/ and http://artinteract.tumblr.com/

Public art displays can also build on Riverdale's reputation as the greenest and leafiest community in New York City. Plantings in a new median could reflect an assortment of all street trees in the City—a living "Street Trees of NYC" exhibition that would attract both residents and visitors to the district. Similarly, once New York City Department of Parks and Recreation replaces the dead street trees on Riverdale Avenue, the Association (working perhaps with a partner like Wave Hill) can label the trees with sturdy metal signs.



8. Benefits

Public investment in streets, sidewalks and parks is very likely to encourage more residents to shop, dine and walk in the downtown business district. It will encourage private property owners to re-invest in stores, shopping centers, residential buildings and homes. Longer-term, these public investments will attract more businesses that will increase employment, tax revenue and the overall economic activity in the Northwest Bronx. More pedestrian movement through the business district will reduce crime and create a better sense of community well-being.

NYC DOT has issued a number of reports in the past five years documenting the tremendous impact that streetscape improvements have on traffic and pedestrian safety, traffic flow and business.

- Streetscape improvements on Fordham Road resulted in 71% increase in retail sales, 20% increase in bus speeds and 10% increase in bus ridership.
- Streetscape improvements around the narrow streets around Union Square resulted in 16% decrease in speeding and 49% fewer commercial vacancies.
- Streetscape improvements on East 180th Street (Bronx) resulted in 67% fewer pedestrian crashes and 29% decrease in speeding.

These statistics are just a sampling of the documented improvements around the City from modest capital investments in improved streets, sidewalks and public plazas. And the results are NOT limited to affluent or highly-trafficked commercial areas of Manhattan. The safety and business improvements are documented City-wide. For example, in summer 2008 the NYC DOT implemented a series of streetscape improvements at East 149th Street and Westchester Avenue in the "Bronx Hub." Within three years, retails sales had increased 50% (over the borough's average of 18%). Pedestrian injuries were reduced and vehicle travel times were maintained. This is to say nothing of the other less immediate benefits including improved quality of life, reduced crime, better stormwater management from more greenery and reduced greenhouse gas emissions by reduction in vehicle traffic and car/truck idling. Links to various NYC DOT reports are available at www.riverdalebronx.nyc.

Appendix A

Public Participation Schedule

Riverdale, Bronx NYC Smart Growth Plan

Date	Task
January 21, 2015	Association holds meeting and provides project update (open to public)
February 25, 2015	Association holds meeting and provides project update (open to public)
April 1, 2015	Association holds meeting and provides project update (open to public)
May 13, 2015	Association holds meeting and provides project update (open to public)
May 20, 2015	VHB hosts first meeting of advisory committee
June 24, 2015	Association holds meeting and provides project update (open to public)
June-July 2015	VHB data collection from Riverdale Avenue, Mosholu Avenue and Broadway
August 15, 2015	VHB completes existing conditions report
September 1, 2015	Association launches website with existing conditions report
Sept. 24, 2015	VHB hosts second meeting of advisory committee
October 14, 2015	Association holds meeting and provides project update
February 3, 2016	Association holds meeting and provides project update (further meetings will be held in Mar., April, May and June 2016)
March – May 2016	VHB and Board review draft plan with DOT, DCP, NYC Parks and Elected Officials
June-August 2016	Association meets with stakeholders to review draft plan
Summer 2016	Association posts draft plan on website and solicits public comments
July or September 2016	Association presents draft to community board committees and full community board
September 30, 2016	VHB issues final plan

Appendix B

Summary Chart of Capital Improvements

Plan Section	Category	Improvement	Responsibility for Capital Costs	Responsibility for Maintenance Costs	Timing[6]
2.2	Traffic and Pedestrian Safety	Traffic Calming Riverdale Avenue	NYC DOT	NYC DOT	Immediate
2.3	Traffic and Pedestrian Safety	Traffic Calming Broadway	NYC DOT	NYC DOT	Immediate
2.4	Traffic and Pedestrian Safety	Traffic Calming Mosholu Avenue	NYC DOT	NYC DOT	Immediate
2.5	Traffic and Pedestrian Safety	Safer Pedestrian Paths and Connections at West 254th and other locations	City	Property Owners	Immediate
2.6	Traffic and Pedestrian Safety	Sidewalk Repair, creation of curbs	City and Property Owners	Property Owners	Immediate
2.7	Traffic and Pedestrian Safety	Crosswalk Restriping	NYC DOT	NYC DOT	Immediate
2.8	Traffic and Pedestrian Safety	New Crosswalk Locations	NYC DOT	NYC DOT	Mid-term
2.9	Traffic and Pedestrian Safety	ADA-Crosswalk Compliance	NYC DOT	NYC DOT	Immediate
2.10	Traffic and Pedestrian Safety	Pedestrian Countdown Signals	NYC DOT	NYC DOT	Mid-term
2.11	Traffic and Pedestrian Safety	Pedestrian Refuge Areas	NYC DOT	NYC DOT	Immediate

[6] Immediate repairs can be made by NYC DOT through its normal design, planning and capital budget process. Mid-term improvements require special capital allocations from the New York City Council or New York State Legislature and will require two to three years.

	Improvement	Responsibility for Capital Costs	Responsibility for Maintenance Costs	Timing[6]
fic	Bus Turning at City Line[7]	City, NYC DOT	NYC DOT	Mid-term
ety	Other In-street Pavement Markings	NYC DOT	NYC DOT	Immediate
ety	Turn Prohibition Signs on Riverdale Avenue at W. 259th St.	NYC DOT	NYC DOT	Immediate
ety	Reconstruct Henry Hudson Parkway Ramps at Broadway	New York State DOT, NYC Parks	New York State DOT	Mid-term
ety, and	Reconstruct the intersection of Broadway with Mosholu Avenue/David Sheridan Plaza	NYC DOT	NYC DOT	Mid-term
ety, and	Reconstruct the intersection of Broadway with Manhattan College Parkway	NYC DOT	NYC DOT	Mid-term
ety,	Protect residential side streets	NYC DOT	NYC DOT	Immediate
ety	Turn Lanes and Lights	NYC DOT	NYC DOT	Immediate
ety	Traffic Signal Controllers	NYC DOT	NYC DOT	Immediate

	Improvement	Responsibility for Capital Costs	Responsibility for Maintenance Costs	Timing[6]
ety	School Bus and Loading Zone Management	NYC DOT	NYC DOT	Immediate[8]
	Parking Buffer	NYC DOT	NYC DOT	Immediate
	Parking Restrictions	NYC DOT	NYC DOT	Immediate
and	Raised, Planted Street Median	Striped Median: NYC DOT Landscaped Median: City	NYC Parks and Association	Striped median: Immediate Landscaped Median: Midterm
and	Restoration of median on Fieldston Road at Mosholu Avenue	Curbs and crosswalks: NYC DOT Landscaped Median: City and Association	NYC Parks and Association	Repaired curbs and crosswalks: Immediate Improved landscaping: Mid-term
and	Pocket Parks and Placemaking	Curbs and crosswalks: NYC DOT Landscaped Median: City and Association	NYC Parks and Association	Mid-term
and	Expanded tree pits	NYC Parks	Association	Mid-term

Plan Section	Category	Improvement	Responsibility for Capital Costs	Responsibility for Maintenance Costs	Timing[6]
5.4(b)	Environmental Sustainability and Appearance	Tree guards	Association[9]	Association	Mid-term
5.4(c)	Environmental Sustainability and Appearance	Replacement of dead street trees	NYC Parks	NYC Parks	immediate
5.4(d)	Environmental Sustainability and Appearance	Rain gardens and bioswales	NYC DEP	NYC DEP and Association	Mid-term
5.5	Environmental Sustainability and Appearance	Street Furniture[10]	NYC Department of Sanitation	T NYC Department of Sanitation	Mid-term
5.6	Environmental Sustainability and Appearance	Bus Shelters	NYC DOT	NYC DOT	Immediate
5.7	Environmental Sustainability and Appearance	Bus Pads	NYC DOT	NYC DOT	Immediate
5.8	Environmental Sustainability and Appearance	Historic/Antique Street Lights	City	NYC DOT	Mid-term
5.9	Environmental Sustainability and Appearance	Bury power lines	City and Con Edison	Con Edison	Long Term

[9] Public funding should be made available for the installation of tree guards. It is anticipated, however, that the Association would need to seek out that funding.
[10] A private concessionaireinstalls and maintains street furniture for NYC DOT. NYC Department of Sanitation has funding and oversight for waste recepticals. A new generation of attractive recepticals should be prioritized on Riverdale Avenue.

Plan Section	Category	Improvement	Responsibility for Capital Costs	Responsibility for Maintenance Costs	Timing[6]
5.10	Environmental Sustainability and Appearance	Attractive signage including gateway signage	City and Association	Association	Mid-term
5.11	Environmental Sustainability and Appearance	Improved storm sewers	NYC DEP	NYC DEP	Long Term

List of Figures

No table of figures entries found. Skyview Shopping Center Conceptual Redevelopment Plan

Acronyms and Abbreviations List

ADA	-	Americans with Disabilities Act
BID	-	Business Improvement District
Con Ed	-	Consolidated Edison
DCP	-	Department of City Planning
DEP	-	Department of Environmental Protection
DOT	-	Department of Transportation
E	-	East
FAR	-	floor area ratio
KRVDC	-	Kingsbridge Riverdale Van Cortlandt Development Corporation
mph	-	miles per hour
MTA	-	Metropolitan Transportation Authority
N	-	North
NYC	-	New York City
NYCDEP	-	New York City Department of Environmental Protection
NYC DOT	-	New York City Department of Transportation
NYC Parks	-	New York City Department of Parks & Recreation
NYSERDA	-	New York State Energy Research and Development Authority
Pl	-	Place
PS	-	Public School
Rd	-	Road
S	-	South
St	-	Street
TOD	-	Transit Oriented Development
W	-	West