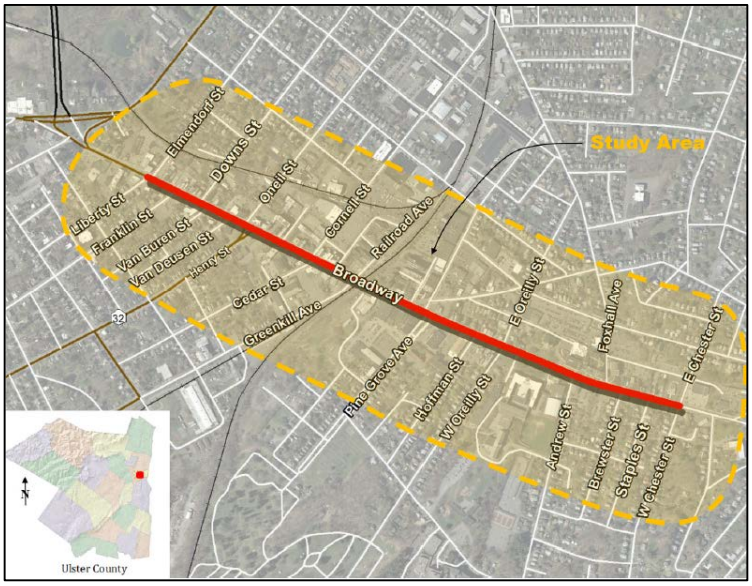
Executive Summary

Introduction



The Broadway corridor has been referred to as the "spine" of the City of Kingston, connecting the historic Stockade and Rondout districts with the Midtown neighborhood. This plan's study area focused on the Broadway public right-of-way between Liberty/ Elmendorf Streets and Chester Street.

The purpose of this transportation study, was clearly defined as being one component of an effort to assist the City of Kingston with bringing new vitality to the neighborhood through the arts, institutions and government functions. It was to focus on connecting streets in a manner that improves pedestrian and bicycle safety; aesthetics and traffic flow; and connecting the Broadway corridor with surrounding neighborhoods and amenities such as the Kingston Point Rail Trail and other multi-use trails under development.

Existing Conditions Summary

The existing conditions analysis undertaken for this Plan included a detailed review of previous documents, as well as in-the-field conditions and assessments for traffic, safety, parking, transit, complete streets, streetscaping, and land use along the corridor. Details regarding existing conditions can be found in **Technical Memorandum #1.**

The studies determined as most relevant to the subject study are:

- Ulster County Non-Motorized Transportation Plan: Downtown Kingston Access (December 2008)
- Kingston Connectivity Project Application to the New York State Transportation Enhancements Program (August 2013)
- Kingston Greenline Concept Plan (January 2014)

- Kingston 2025 – Draft Comprehensive Plan (underway)
- Two Federal-aid projects – Greenkill Avenue Bridge & I-587 with Albany Avenue

As documented in Technical memorandum #1, specific details documenting existing conditions in the corridor were analyzed, compiled, assessed, and are summarized hereafter:

Jurisdiction

Broadway is listed as part of the National Highway System. Between I-587 and Henry Street, Broadway is an urban principal arterial state highway which is not designated as an access highway. From Henry Street to Delaware Avenue, Broadway is an urban principal arterial local road. From Henry Street to Cornell Street, it is designated as a National Network "access highway".

Typical Cross Sections

There are 5 typical cross sections on Broadway in the study area corridor. Geographically these five roadway segments are defined as follows: St. James Street to Liberty/Elmendorf Streets (transition from 2 to 3 travel lanes); Liberty/ Elmendorf Streets to Cedar/Cornell Streets (4 travel lanes); Cedar/Cornell Streets to Dederick Street (3 travel lanes); Dederick Street to Hoffman Street (transition from 3 to 2 travel lanes); and Hoffman Street to East Chester Street (2 travel lanes).

Traffic

Broadway to the west of Grand Street experiences a higher level of vehicular activity and, as discussed below, higher speeds. East of O'Reilly Street, the corridor has some of the lowest counts in the study area. Approximately 3% to 4% of vehicles are considered heavy vehicles (trucks with six or more tires or buses), which is typical for urban streets.

Traffic Operations

A Synchro traffic simulation was prepared for the typical PM peak hour traffic volumes and conditions. The analysis indicated that all of the intersections generally experience good to very good traffic conditions, especially along the 4-lane section of the corridor (from Liberty Street to Cedar Street), where operating conditions are indicative of a system where the available capacity considerably exceeds peak vehicular demand. The one notable exception is the intersection of Foxhall Avenue with Broadway, where operating conditions are compromised by non-functional detector loops.

Safety (Crash) Analysis

According to the data reviewed, there were a total of 369 crashes within the study area at intersections or midblock on Broadway. Although useful comparable urban corridors are difficult to find, with a calculated accident rate of 22.4 per million vehicle miles traveled, the Broadway corridor experiences as much as 4 times the average accident rate as compared to the statewide average for corridors of its type.[i] For the entire corridor, there were no fatal crashes, 15 pedestrian crashes, and 12 bicycle crashes.

Regarding speeds in the corridor, the prevailing speeds (according to the 85th percentile calculations) are 29 to 30 miles per hour in the area of Andrew Street, which is at or below the speed limit. In the area of the Greenkill Avenue overpass, the 85th percentile speeds are 37 to 38 miles per hour – seven to eight miles per hour in excess of the speed limit.

Parking

Parking use within a five-minute walk of Broadway in lots and on-street was surveyed during a typical weekday. Based on the data, most streets and lots are not used more than 70% of capacity (See Figure 12 in Technical Memorandum #1). Overall the parking data do not indicate a widespread parking deficiency, but there are areas where parking regulations could be modified to encourage more efficient use of parking.

Signage

This assessment found that signage is generally inconsistent throughout the corridor and needs updating. Generally speaking, parking signs are adequate, although Municipal Parking Lots are not well signed for users unfamiliar with the corridor. Bus stop signs are in need of improvement as they vary in message and some do not provide schedule information.

Transit

Ulster County and the City of Kingston operate two separate transit networks in the City. The systems are complementary in their missions, but not seamlessly integrated. Citibus operates three routes providing service to Broadway. This service has 1-hour headways and operates from 6:30AM to 7:00PM. UCAT operates as a "flag-stop" fixed-route system, meaning that passengers may board at any location that is safe for the bus to stop along a bus route. In the City, UCAT buses will drop off passengers upon request, but will only pick up passengers at Kingston Plaza and along Albany Avenue (for trips to Hudson Valley Mall).

Complete Streets

In order to develop a complete streets assessment, the Consultant Team and Technical Advisory Committee (TAC) undertook a walking tour through the corridor to assess pedestrian-safety infrastructure and the overall pedestrian experience. This walk and assessment identified major pedestrian generators – the Ulster County Performing Arts Center, hospital, City Hall and Kingston High School – as well as pedestrian facilities and their condition.

Streetscaping

The assessment of streetscaping within the corridor found that there are streetscape elements in various locations, but they vary widely in condition, quality, aesthetic appearance, and materials. The elements identified include: sidewalks, street trees (and tree grates), street lights, street furniture, bicycle racks, bus shelters, parking meters, signage, and public service facilities (fire hydrants, utility boxes & mailboxes). Often these elements were found to be inconsistent in type, size, location or materials.

Land Use Assessment

Improvements to the Broadway Corridor are not being considered as a stand-alone project. Instead, they are part of the City's ongoing planning efforts aimed at upgrading not only the corridor but also the Midtown area which surrounds it. The Broadway neighborhood is a crucial element of Kingston as a whole and one of the main focuses of the City's current comprehensive planning effort. The final draft Year 2025 Comprehensive Plan for the City of Kingston calls for "[A] New Land Use Approach for Midtown" and cites an emphasis on the need for "…improvements [including] **complete street enhancements that strengthen multi-modal connections and improve walkability**; **visual and physical enhancements to the streetscape** and buildings along Broadway; mixed-use adaptive reuse and infill development; and **critical parks and recreational investments** -- all of which are needed to transform Midtown from an outdated commercial artery…into a socially and economically vibrant place where people in the City and surrounding region want to live, shop, work and be entertained."[ii]

Pedestrian Activity

Pedestrian counts revealed that PM peak hour pedestrian volumes crossing Broadway ranged from 30 to 40 pedestrians to a minimum of 5 to 10 per hour per location. The highest volumes were identified at the crossings of Broadway at Dederick Street, Grand Street, and Pine Grove Avenue likely due to the proximity to the YMCA and the nearby businesses, as well as at Andrew Street due to the proximity of the high school and hospital.

Cyclist Activity

Cycling counts revealed that bicycle traffic along the Broadway corridor during the PM peak hour approached a maximum of 20 to 30 bicycles per hour eastbound, likely as a result of school dismissal. Elsewhere on Broadway, cycling rates are lower at approximately 5 to 10 bicycles per hour per direction. Many of the cyclists were noted to be riding on the sidewalk, which is indicative of a less-than-desirable cycling environment on the street. Observation at Kingston High School also indicates that a number of students are cycling to school utilizing Broadway on their commute; 3-5 bicycles can be observed locked to the fence daily at the front entrance of Kingston High School, with more parked elsewhere on campus.

Planning Process

From the onset of this project, the primary objective was to develop a corridor plan that includes design concepts to improve mobility, accessibility, and safety for pedestrians, bicyclists, and motorists along and adjacent to the corridor. The Plan was to be consistent with Complete Streets concepts and community goals and expectations – both of which were executed throughout the planning process.

This plan, which fulfils this primary objective, was the result of significant public input, work by UCTC, City, and consultant staff and a project TAC made up of residents and business owners. Throughout the planning process, he TAC helped steer the direction of this study

based on the four project goals identified at the beginning of the planning process. These include:

1) Renew, restore and revive Broadway
2) Improve pedestrian and bicycle safety, aesthetics, transit, and traffic flow
3) Reconnect the Broadway corridor with surrounding neighborhoods and amenities, such as the Kingston Point Rail Trail and other multi-use trails
4) Revitalize this important regional corridor employing green infrastructure principles

The public outreach process consisted of two sets of public meetings, discussions with, among others, area property and business owners, NYSDOT, City Department heads, in addition to frequent TAC meetings. There were two project websites (on the City of Kingston website and the UCTC website). Flyers, press releases, social media postings, targeted emails were used to let the public know about the project and upcoming meetings.

The first public meeting was held on November 19, 2014 at Seven21 Media Center to discuss existing conditions and community goals. At this meeting, the TAC received a strong recommendation that the selected plan provide a near seamless connection between the three trails contemplated which will lead into the study area. Following the public meeting, the Needs and Opportunities Assessment, **Technical Memorandum #2**, was developed.

The TAC then looked at street corridor alternatives and selected a preferred alternative based on its extensive evaluation of possible alternatives. The TAC then approved a Draft Plan and accompanying recommendations for release for public comment.

An extensive outreach effort was put forth in advance of the second public meeting on August 6, 2015, the purpose of which was to review the Draft Plan recommendations. The meeting was held at the Ulster County Performing Arts Center (UPAC). Following the public meeting, there was a public comment period on the plan through September 4, 2015. Following a final meeting of the TAC and a meeting with the Kingston City School District Board of Education to solicit additional feedback, the plan was revised to incorporate public comments.

Project Objectives

The following plan elements were discussed throughout the planning process:

Renew, Restore, and Revive Broadway

The draft Comprehensive Plan envisions the transformation of Midtown "into a socially and economically vibrant place where people in the City and surrounding region want to live, shop, work and be entertained."

Improve Safety for All Users in the Corridor

Improving safety within the corridor is one of the key goals of this plan. Recommendations for safety included implementing much needed safety measures such as reducing speed, upgrading traffic signals and improving crossing safety for pedestrians. There were also many comments that parents with families who would like to ride in the downtown but do not because they do not feel comfortable riding along Broadway.

Streetscaping and Placemaking

The intent of streetscaping and placemaking is to improve "Sense of Place", making the streets and sidewalks of a community somewhere residents and tourists like to spend leisure/ recreational time. Placemaking is generally defined as planning and designing a location to give it a distinct and obvious "look and feel" or landscape. Recommendations for the Broadway corridor included possible creation of pocket parks in the vicinity of the intersections of Broadway and Henry Street and Broadway and Pine Grove Avenue, with additional opportunities at Broadway and Grand Street.

Landscape elements in this effort refer specifically to vegetation such as trees, shrubs, and other greenery. Sidewalk treatments included consideration of various types of materials and material combinations which would enhance the sidewalk experience. Other streetscaping and placemaking features considered included pedestrian-oriented infrastructure and street furniture. Public art was also mentioned as something to enhance the public discourse.

Complete Street Example from Massachusetts

Enhance Existing Transit / Bus Routes through the Corridor

Several recommendations to improve bus service along the corridor were voiced including: implementing schedule and route identification, use of hydrogen fuel cell or electric shuttle buses (eliminating fossil fuel buses), providing frequent, dependable service that is visible and continuous between Broadway and the Plaza areas (perhaps a shuttle system); and merging the City & County bus systems. It was also mentioned that bus service should be kept affordable.

Improve Visibility and Perceived Access to Off-Street Parking Spaces

Parking was discussed in detail throughout the study process. While adequate parking in the study area exists and this condition was generally acknowledged throughout the process, the need to preserve parking, to better sign the municipal parking lots on and off Broadway, and to these lots more visible and attractive with landscaping and design improvements was noted.

Better Accommodate Bicyclists & Enhance Bike Routes throughout the Corridor

A key component of the Building a Better Broadway plan is to bring families into the downtown to support the mix of new development, including businesses and entertainment, contemplated both in the Comprehensive Plan and the BEAT (Business, Entertainment, Arts, and Technology) initiative. High-quality pedestrian and bicycle facilities throughout the corridor would be one means of drawing in this key demographic. Numerous studies have documented the economic benefits of introducing shared-use trails into commercial neighborhoods. From an economic development perspective, trail networks are tourist destinations and a revitalized streetscape encourages additional retail sales. They also provide recreational opportunities for Broadway residents and improved commuting opportunities for those traveling to and from work by bike.

Public comment indicated the strong desire to provide a high-quality pedestrian and bicycle connection between the three pending/contemplated pedestrian and bicycle shared-use trails which enter the study area. Ideally, these connections would provide the same level of comfort and safety as the trails themselves or their use will be significantly lower than their full potential. As the plan evolved, it became apparent that there were a two primary issues, potential loss of parking and high school drop-off/pick-up activity, which needed further review before bike lanes could be extended across the full length of the corridor.

It is important to note that all of the bicycle options considered require the removal of a travel lane on Broadway west of Pine Grove Avenue. From Pine Grove Avenue east (with the exception of parking in front of Rite Aid), parking would need to be removed from the south side of Broadway to accommodate exclusive bicycle facilities. The type of bike lanes installed, which is primarily a function of how the roadbed is stripped, may require special approval from the NYSDOT to install newly emerging practices promoted by the Federal Highway Administration which have not yet been adopted by the Department. All options require traffic signal optimization to move traffic efficiently along the corridor.

Final Draft Plan Recommendations

Bicycle Facilities

The revised plan recommends a two-phased approach to providing separated bike lanes along Broadway which will connect the three contemplated shared-use path facilities which enter the study area. The first phase begins at the intersection with Elmendorf Street and Liberty Street, and runs east to a terminus at Grand Street at the public space in front of the Millard Building. At this point, cyclists will be directed to cross Grand Street and utilize a shared lane

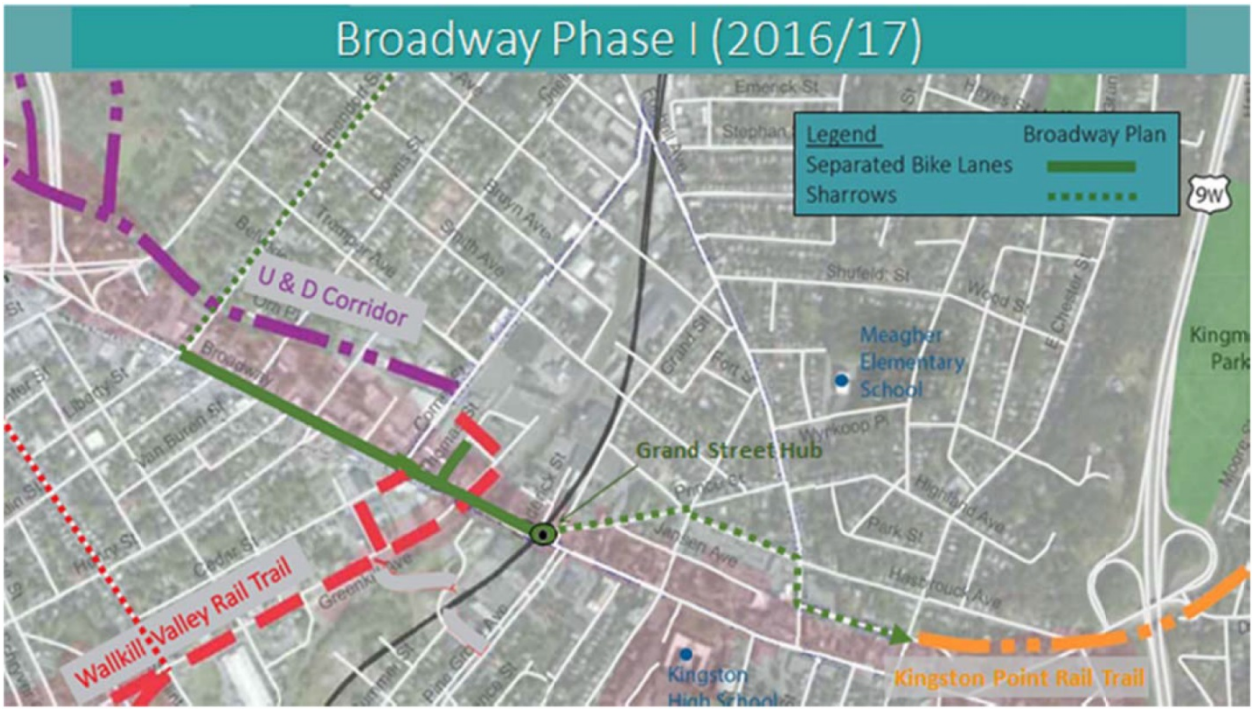
system with accompanying "In Lane" sign assembly on side streets of Prince, Hasbrouck, Foxhall and Jansen Streets to connect the Kingston Point Rail (or as where otherwise determined feasible under the ongoing Kingston Connectivity Project being conducted by the City). Phase II would run from Grand Street to East Chester Street and be constructed subject to the phasing conditions relating to parking preservation and high-school drop off/pickup.

Phase I

For Phase I, separate from the need for bicycle infrastructure, a lane reduction is proposed on Broadway to improve safety, access and mobility in the corridor. This lane reduction will run from the intersections of Elmendorf Street/Liberty Street to Cedar Street/Cornell Street, reducing the present four travel lane configuration to two travel lanes and a center turn lane.

A connection to the Roosevelt Park neighborhood at the Manor Place parking lot is proposed via "In Lane" sign assembly and pavement markings (i.e. sharrows) on the low-volume route along Elmendorf Street, North and South Manor Avenue, and Manor Place (or as otherwise determined through City-led complete streets planning initiatives).

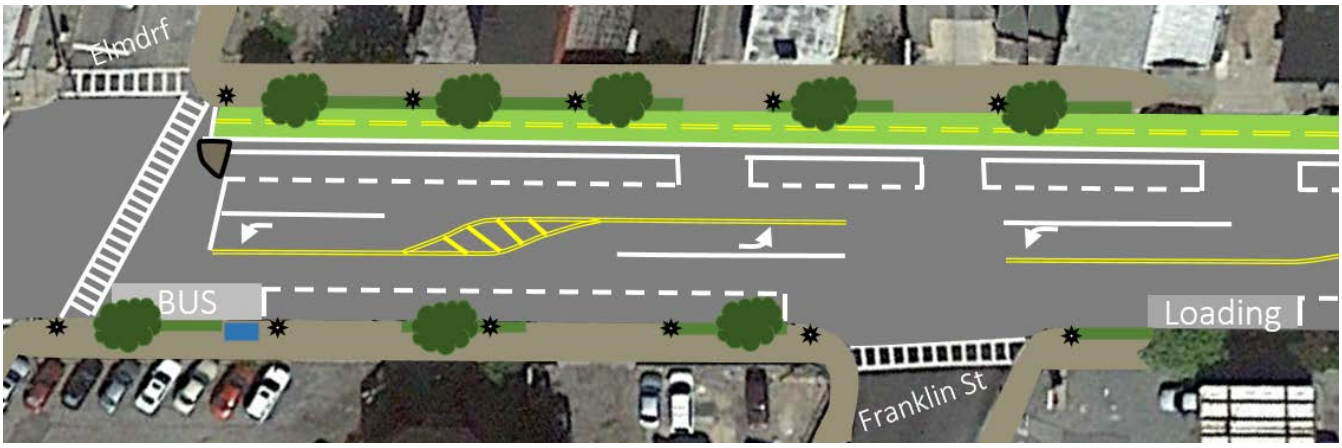
Final Draft Plan Alignment – Phase I



Phase I implementation would occur within the timespan necessary to be completed under implementation grants that have been secured by the City of Kingston (roughly 2017 – 2022). If all of the identified improvements are implemented along this section of the corridor, up to 13 of the existing 111 parking spaces on this section of Broadway will need to be eliminated. The remaining 95 spaces will be more than adequate to accommodate the observed parking demand of 37 vehicles. Phase II would be implemented at a point in time to be determined,

allowing for adequate time for the public and local officials to evaluate Phase I changes and their levels of effectiveness.

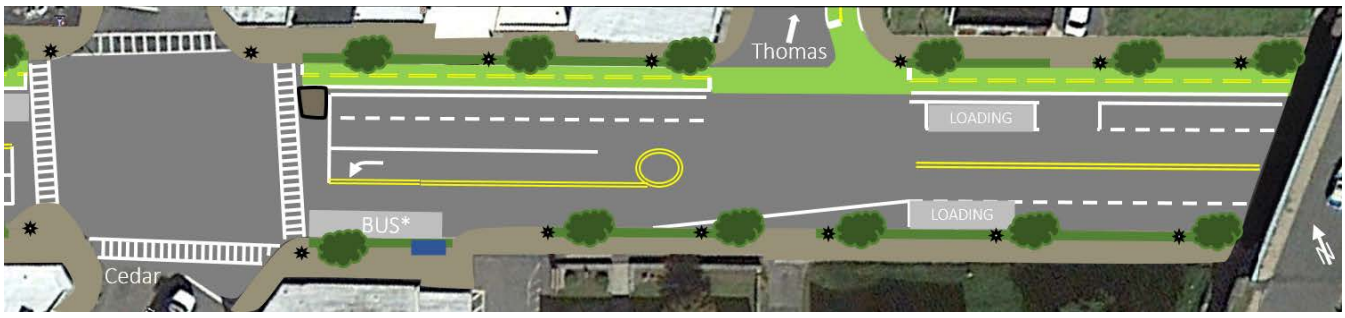
Proposed Section of Broadway between Liberty Street and Cedar Street



Phase I of the project would terminate the separated bike lane at the Prince/Grand Street intersection and transition cyclists to on-street facilities via a designated Bike Route to the Kingston Point Rail Trail via Grand Street, Prince Street, Hasbrouck Street, and Jansen Avenue. The installation of W11-1 and NYW5-32P signs is proposed along with sharrows to warn drivers to watch for cyclists traveling along the route.

The public space that currently exists in front of the Millard Building parking lot at Grand Street should be enhanced with a variety of landscaping elements to create a hub for cyclists. Signature amenities such as a wayfinding kiosk illustrating key features of the Broadway corridor and regional trail system, as well as possible bike fix-station, water feature/drinking fountain, and other similar amenities should be considered.

Proposed Section of Broadway between Cedar Street and Pine Grove Avenue



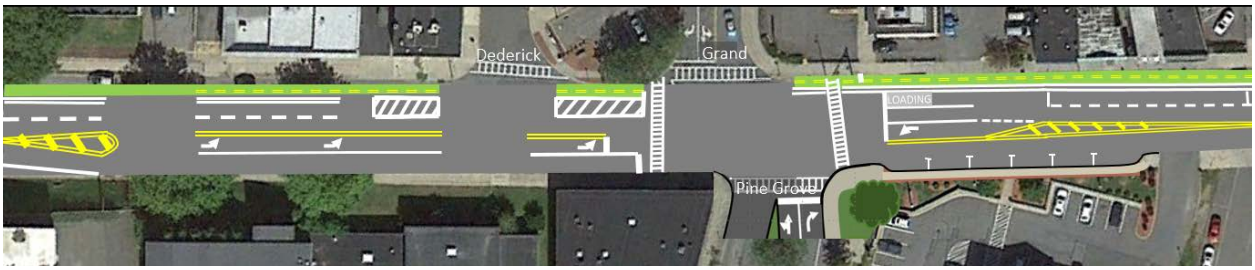
Before – Broadway looking west from Greenkill Avenue

After – With Separated Bike Lanes, Buffer, Parking, Street Trees and New Sidewalk

PHASE II

Phase II would include extending the separated bike lane from Grand Street to the Kingston Point Rail Trail via Broadway and East Chester Street. It would require the elimination of parking along the south side of Broadway from Hoffman Street to Staples Street and its implementation should be conditioned on the ability of the City to address the concerns of the business community as they relate to parking and should also await the completion of the Kingston School District's key capital improvements at KHS.

Phase II: Proposed Section of Broadway at Grand Street



Phase II: Proposed Section of Broadway in Front of City Hall and Kingston High School

The TAC has recommended that two-way separated bike lanes be installed, consistent with the National Association of City Transportation Officials' *2014 Urban Bikeway Design Guide* and the *2015 FHWA Separated Bike Lane Planning and Design Guide*. This may require special approval from the NYSDOT. It is noted that the type of bike lanes installed is primarily a function of how the roadbed is stripped, not how it is constructed or how wide it is.

Signal Upgrades

To improve traffic capacity and pedestrian safety, the existing traffic signals along the corridor should be upgraded. Signal upgrades should take full advantage of the latest technology to ensure that the signals are optimally coordinated to: moderate vehicle speeds, reduce travel time, and 'smooth' traffic flow by allowing for more continuous periods of green lights on the corridor. The Synchro analysis indicates that the overall delay along the corridor will be reduced, as will fuel consumption and emissions (see Detailed Measures of Effectiveness below). The signals should be equipped with 12" lenses and intersections provided with

display countdown pedestrian signals. Separate bicycle indications and signal phasing should be implemented with the completion of the separate bike lanes.

Intersection capacity analyses shows that adjustments to the signal timing can ensure that overall Level of Service D or better conditions will continue to prevail in the corridor even when anticipated growth in traffic is factored in, and that no individual movements will operate at a Level of Service F.

Future Conditions, No Action

Detailed Measures of Effectiveness

Network Totals	
Number of Intersections	27
Total Delay / Veh (s/v)	17
Stops / Veh	0.33
Average Speed (mph)	8
Total Travel Time (hr)	278
Distance Traveled (mi)	2202
Fuel Consumed (gal)	303
Fuel Economy (mpg)	7.3
CO Emissions (kg)	21.17
NOx Emissions (kg)	4.12
VOC Emissions (kg)	4.91
Performance Index	235.8

Future Conditions, Draft Plan

Detailed Measures of Effectiveness

Network Totals	
Number of Intersections	25
Total Delay / Veh (s/v)	11
Stops / Veh	0.30
Average Speed (mph)	11
Total Travel Time (hr)	203
Distance Traveled (mi)	2186
Fuel Consumed (gal)	233
Fuel Economy (mpg)	9.4
CO Emissions (kg)	16.28
NOx Emissions (kg)	3.17
VOC Emissions (kg)	3.77
Performance Index	152.0

Safety Improvements

To improve safety the following is recommended:

- Prohibit right-turns on red at the key signalized intersections to reduce pedestrian and vehicular conflicts.
- Replace existing substandard signing with signs with larger letters, improved reflectivity and illumination, where feasible. It is recommended that larger lettering be used and that the font be changed to the FHWA-approved "Clearview Hwy" font.

Transit Improvements

To better reflect the importance of transit to the corridor and the safety of its operations the following is recommended:

- Increase service frequency along the corridor between the Rondout and Stockade districts/Hannaford Plaza, perhaps by integrating City and County services.
- Provide high profile standardized bus stops that include scheduling information and locate them at the far side of key intersections.
- Upgrade the existing bus fleet to include real-time bus arrival and departure information (with app technology), bicycle racks, and alternative fuel technology.

Streetscape & Additional Safety Improvements

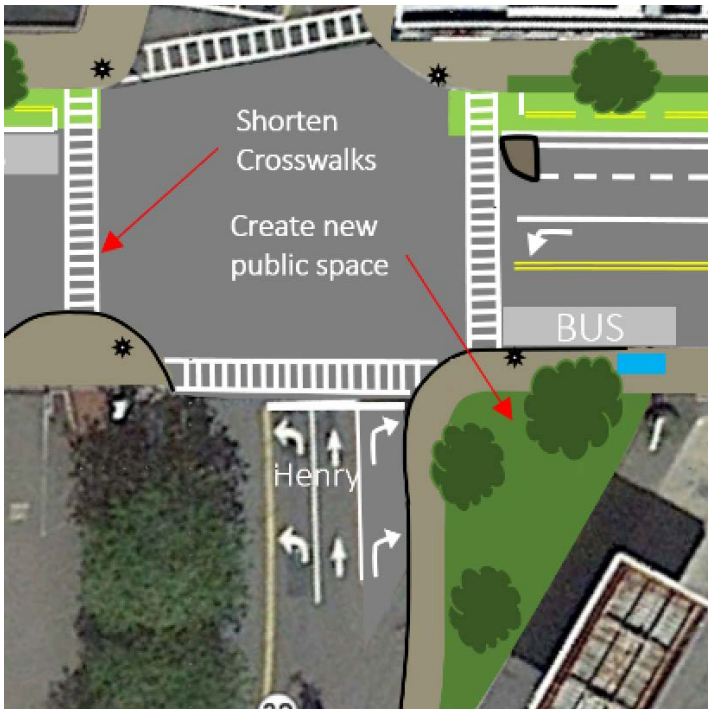
Undertake the following measures to upgrade the visual elements of the corridor, including the road, adjoining buildings, street furniture, trees and open spaces that combine to form the street's character and establish a sense of place:

- Rehabilitate the sidewalks along the corridor with a combination of bluestone (where already installed) and brick-imprint paving.
- Install attractive street furniture including bicycle racks, trash/recycling receptacles, public art and benches.
- Plant street trees which will provide shade but not overwhelm the above or below ground infrastructure, or heave the sidewalks. Native species are preferred. Tree planters which manage storm water runoff should be incorporated. Best practices in urban tree propagation, such as CU-Structural Soil™, armored tree pits, and other measures should be used.
- Existing healthy trees should be retained where possible and their hardiness improved with integration of new CU-Structural Soils and tree pits.
- Replace the existing light fixtures along the corridor with attractive, new, energy-efficient fixtures, consistent with recent improvements and which shed a warm glow on the sidewalks and buildings in the evenings.
- Encourage sidewalk activities by allowing outdoor displays and seating and the use of public art.
- Prohibit parking between 7:00 a.m. and 11:00 a.m. in select locations (typically on the far side of unsignalized intersections) to permit commercial loading.
- Construct sidewalk bump outs at crosswalks to shorten the distance pedestrians must walk to cross Broadway in locations that do not interfere with bike lanes, bus and commercial loading zones.

Typical Curb Bump Out

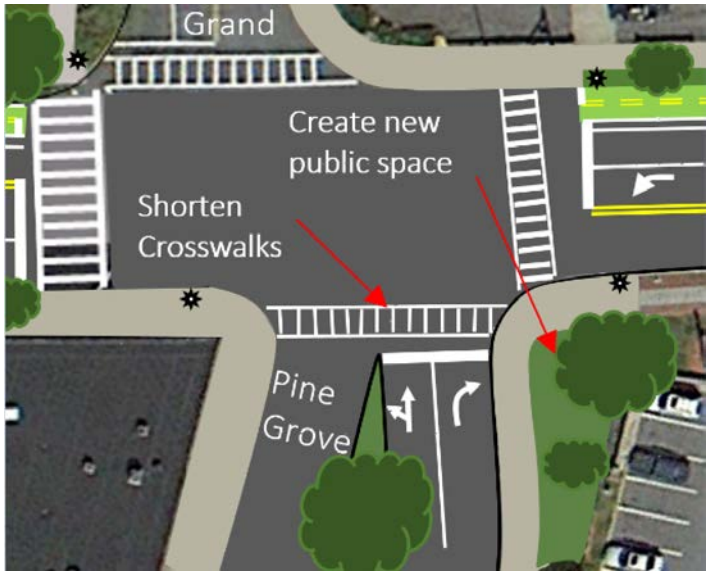
- Reconfigure the intersection of Henry Street with Broadway to shorten the crosswalks and to reclaim the space occupied by the northbound right-turn lane, creating a small public open space.

Proposed Placemaking at the intersection of Broadway with Henry Street



- Reconfigure the intersection of Pine Grove Avenue with Broadway to shorten the crosswalks and to reclaim space occupied by the northbound Pine Grove Avenue, creating a small public open space.

Proposed Placemaking at the intersection of Broadway with Pine Grove Ave



- Upgrade those pedestrian crossings without ADA-compliant pedestrian ramps, including installing truncated domes/tactile warning strips, checking that the slope and landing areas on sidewalks conform to ADA code, and that they are the proper width. Strongly consider the use of durable materials, such as stainless steel.
- Upgrade signing of existing unsignalized crossings of Broadway so that they are all consistent with MUTCD requirements.
- Conduct additional pedestrian counts at the intersection of Franklin Street with Broadway to determine whether there is sufficient pedestrian traffic crossing Broadway at that location to justify the installation of a crosswalk.

Cost Estimates

Estimates for cost for the construction/implementation of the improvements identified in Technical Memorandum #3 were prepared based on NYSDOT unit price construction costs and other available data. These cost estimates do not include construction inspection services (which can vary widely) or right-of-way acquisition and assume full build-out of both phases of the preferred plan. Little, if any, right-of-way acquisition is anticipated. As can be seen from the table, it is estimated that the total cost for

the construction of all of the recommended improvements is almost $5 million. A phased approach to implementation as well as identification of other cost-cutting measures can allow for a more economical implementation of the recommendations without sacrificing the overall goals of the project. New light fixtures, for example, at an estimated cost of $600,000 will likely be addressed through the City's separate LED street lighting initiative. In October 2015, the Common Council approved the city borrowing up to $2.1 million to install energy-efficient LED streetlights throughout Kingston; this includes Broadway.

The Draft Plan and Recommendations can be implemented by the federal and state grants received by the City of Kingston in the next 3-5 years. The suggested implementation order of the plan components, its accompanying project cost, potential source of funding, and timeline are found in the table below. Many of the plan components need to be implemented simultaneously (i.e. sidewalk bump outs and sidewalk infrastructure) and they would be installed on a block by block basis.

NYSDOT currently has an allocation of just over $2M under the Transportation Enhancement Program (TEP) to implement the plan. The City is currently expending funds to be reimbursed by NYSERDA for the design and engineering, including $248,600 for streetscape design and engineering, $235,400 for traffic signalization study and design, and $520, 400 to implement improvements to the traffic system, consistent with this plan. In addition, the City will be able to use some combination of CDBG, CHIPS, and Bonding to cover much of the match ($1,000,000) required for the TEP funding. The City will be seeking additional grant funding to fill the gap and extend this project.

Ongoing coordination with other major capital improvement and planning initiatives underway in the Broadway corridor will be crucial. These include the Kingston High School capital plan, the I-587 roundabout project that NYSDOT is leading at the head of Broadway, and the Kingston Connectivity project with Saratoga Associates that will enhance various linkages

Projected Plan Costs, Schedule and Funding Sources

Plan Component	Estimated Cost[1]	Funding Source	Timeline
Phase 1 Construction Plan Development (Elmendorf Street to Foxhall Avenue)	$ 250,000.00	Grant Funding	Year 1
Pedestrian Study at Franklin Street	$ 20,000	Outside Source	Year 1
Parking Study and Parking Management Plan	$ 25,000	Outside Source	Year 1
Determine ROW Acquisition Needs, if any	$ 15,000	Grant Funding	Year 1
Modify Turning Radii at Key intersections (Hoffman and Andrew Streets)	$ 40,000	Grant Funding	Year 2
Prohibit Right-turns on Red (Liberty to O'Reilly Streets)	$ 6,500	Grant Funding	Year 2
Replace Substandard Street Signs (Liberty Street to Foxhall Avenue)	$ 26,000	Grant Funding	Year 2
Bus Stop Infrastructure (Liberty Street to Foxhall Avenue) (Bus Fleet is considered a separate project cost)	$ 175,000	Grant Funding	Year 2
New sidewalk pavement and furniture (Liberty Street to Foxhall Avenue)	$ 1,250,000	Grant Funding	Year 2
Trees and Landscaping (Liberty Street to Foxhall Avenue)	$ 80,000	Grant Funding	Year 2
New Light Fixtures (Liberty Street to Foxhall Avenue)	$ 600,000	Grant Funding	Year 2
Loading Zones (Liberty Street to Foxhall Avenue)	$ 0		Year 2
Sidewalk Bumpouts (Liberty Street to Foxhall Avenue)	$ 130,000	Grant Funding	Year 2
Placemaking at Henry Street, Pine Grove Avenue and Grand Street	$ 125,000	Grant Funding	Year 2
Upgrade curb ramps to ADA requirements (Liberty Street to Foxhall Avenue)	$ 40,000	Grant Funding	Year 2
Upgrade existing midblock pedestrian crossings (Liberty Street to Foxhall Avenue)	$ 17,000	Grant Funding	Year 2
Upgrade Existing Traffic Signals (Liberty Street to Foxhall Avenue)	$ 1,200,000	Grant Funding	Year 2
Separated Bike Lanes (Liberty to Pine Grove - Street Improvements to Foxhall) *or* Separated Bike Lanes (Liberty to O'Reilly Street - Street Improvements to Foxhall)	$ 415,000 $ 418,000	Grant Funding	Year 2
Sharrows and Signs (Elmendorf, Manor, Prince, Hasbrouck, Foxhall & Jansen) –*or*- Sharrows and Signs (Elmendorf, Manor, O'Reilly, Hasbrouck, Foxhall & Jansen)	$ 40,000.00 $ 40,000.00	Outside Source	Year 2
Phase 2 Construction Plan Development (Foxhall Avenue to KP Rail Trail)	$ 150,000.00	Outside Source	Year 2
Modify Turning Radii at Key intersections (Staples Street)	$ 20,000	Outside Source	Year 3
Prohibit Right-turns on Red (E/W Chester Street)	$ 1,500	Outside Source	Year 3
Replace Substandard Street Signs (Foxhall Avenue to E/W Chester Street)	$ 4,000	Outside Source	Year 3
Bus Stop Infrastructure (Foxhall Avenue to E/W Chester Street) (Bus Fleet is considered a separate project cost)	$ 25,000	Outside Source	Year 3
New sidewalk pavement and furniture(Foxhall Avenue to E/W Chester Street)	$ 250,000	Outside Source	Year 3
Trees and Landscaping (Foxhall Avenue KP Rail Trail)	$ 20,000	Outside Source	Year 3
New Light Fixtures (Foxhall Avenue to KP Rail Trail)	$ 200,000	Outside Source	Year 3
Loading Zones (Foxhall Avenue to E/W Chester Street)	$ -	Outside Source	Year 3
Sidewalk Bumpouts (Foxhall Avenue to E/W Chester Street)	$ 20,000	Outside Source	Year 3
Upgrade curb ramps to ADA requirements (Foxhall Avenue to KP Rail Trail)	$ 10,000	Outside Source	Year 3
Upgrade existing midblock pedestrian xings (Foxhall Avenue to E/W Chester St)	$ 3,000	Outside Source	Year 3
Upgrade Existing Traffic Signals (E/W Chester Street)	$ 200,000	Outside Source	Year 3
Separated Bike Lanes (Pine Grove Avenue to Kingston Point Rail Trail) -or- Separated Bike Lanes (O'Reilly Street to Kingston Point Rail Trail)	$ 124,000 $ 121,000	Outside Source	TBD
Total	$ 5,482,000		

1. Does not include construction inspection or Right-of-Way costs. Little or no ROW acquisition is expected

[i] New York State Department of Transportation. Average Accident Rates for State Highways by Facility Type. Based on accident data from August 1, 2012 to July 31 2014. https://www.dot.ny.gov/divisions/operating/osss/highway-repository/Table2_2014.pdf

[ii] City of Kingston. Final Draft Comprehensive Plan (August 26, 2015). Online at http://kingston-ny.gov/filestorage/8463/10953/13539/Final_Draft_of_Comprehensive_(Revised_with_comment_from_8-26-15.pdf. Page 60