



For Discussion Purposes Only - Subject to Change and Refinement



This presentation focuses on the progress that has been made since DOT's last round of workshops focused on the Atlantic Avenue interchange.

The presentation will start with a brief discussion of the overall process.

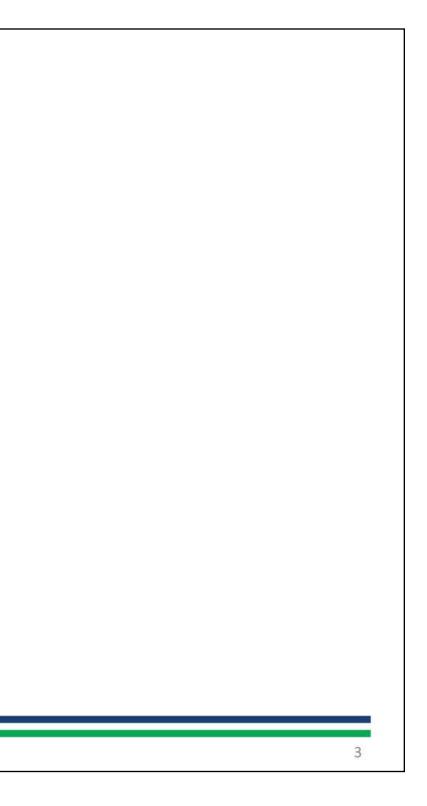
After that, it will recap what DOT heard in the last two rounds of engagement about Atlantic Avenue.

The presentation will then cover a series of design concept updates that have been developed since the last round of workshops.

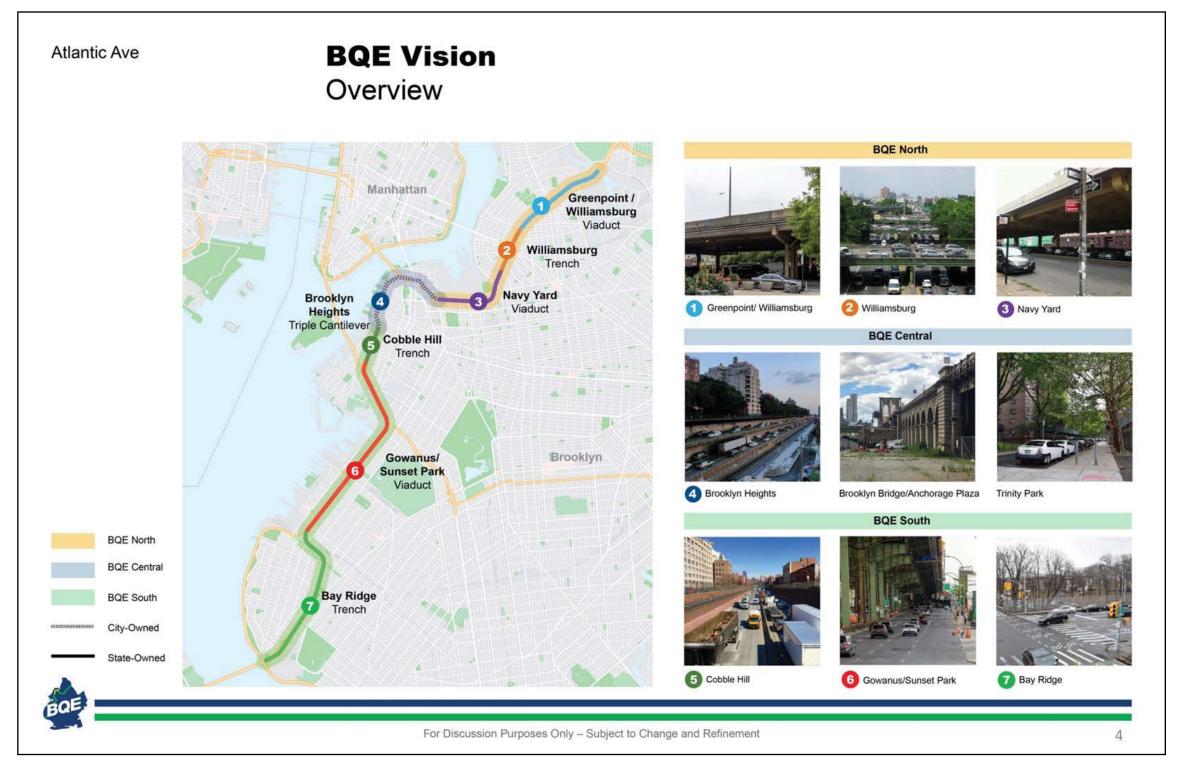








This administration is focused on pursuing a long-term fix for the city-owned portion of the BQE in Brooklyn, including the triple cantilever – highlighted here in dark blue (#4) – while taking a bold, corridor-wide approach to address the entire structure and reconnect communities throughout Brooklyn divided by this highway.



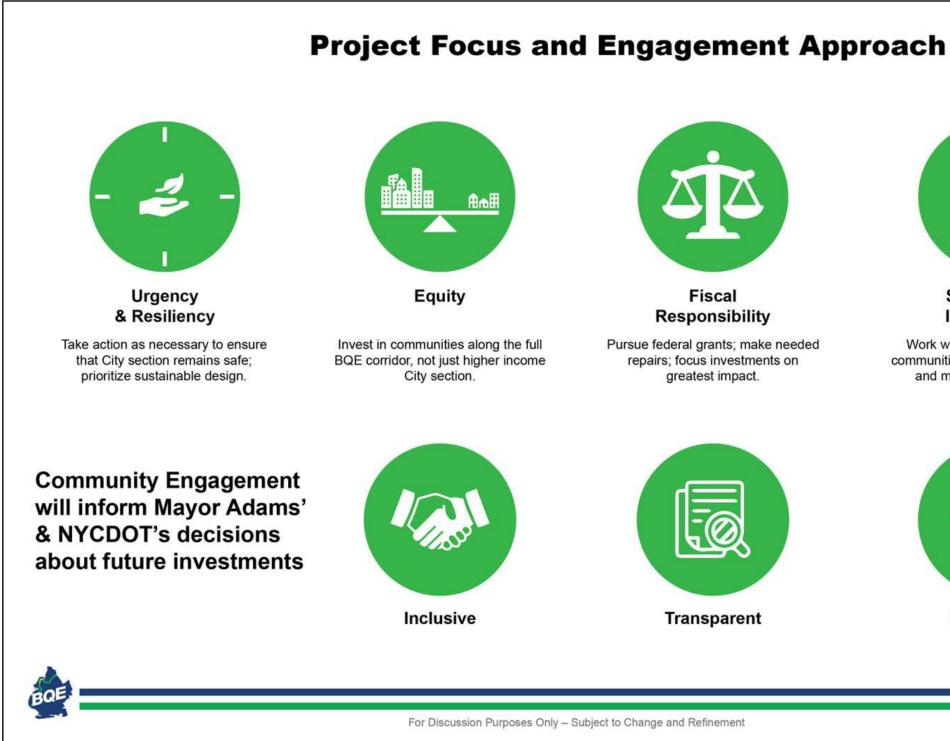




We are focusing on the urgency of maintaining a safe City-owned section while reimagining the entire corridor with consideration for sustainable design, and centering equity.

Moreover, there is a once-in-a-generation opportunity to leverage federal dollars to make these needed repairs and improvements. DOT's overall timeline is ambitious and is being driven by the anticipated federal grants that we'd like to apply for and the overall Environmental approval timeline. We don't want to miss this once-in-a-generation opportunity to access transformative federal infrastructure dollars for New Yorkers during the current administration.

And most importantly, this project only succeeds through a community-driven process: one that is inclusive, transparent, and consistent.







Stakeholder Involvement Work with elected officials and communities to develop BQE vision and move projects forward. Consistent

Our goal throughout this process has been to hear from as many people as possible.

In addition to our active Community Visioning Council, this project is working with community partners, who were selected to support a broad-based outreach strategy along the corridor. These partners are spreading the word about the project and connecting directly with their own constituents and networks through local events, activities, and organizing.

Note that in January and February, DOT hosted a series of topical working groups with subject matter experts to home in on significant policy questions. A summary of findings can be found on the BQE website. Atlantic Ave

Who's Involved?



Community Visioning Council

... Guides the Engagement Process

Representatives from elected official offices, industry, small business organizations, civic and tenant associations, environmental justice, and transportation advocates



Community Partners

... Help Lead Grassroots Engagement

Engagement resources for community based organizations, with meaningful community ties, demonstrated experience in mobilizing their constituencies, and specialty in multilingual capacity

Local, State, & Federal Agencies



U.S. Department of Transportation Federal Highway Administration

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Topical Working Groups

... Facilitate Focused Discussions

Subject Matter Experts facilitate discussion around critical issues such as traffic, transportation, and logistics; open space, connectivity, and public realm; environmental justice, accessibility, and equity; and land use and economic development





Process Update



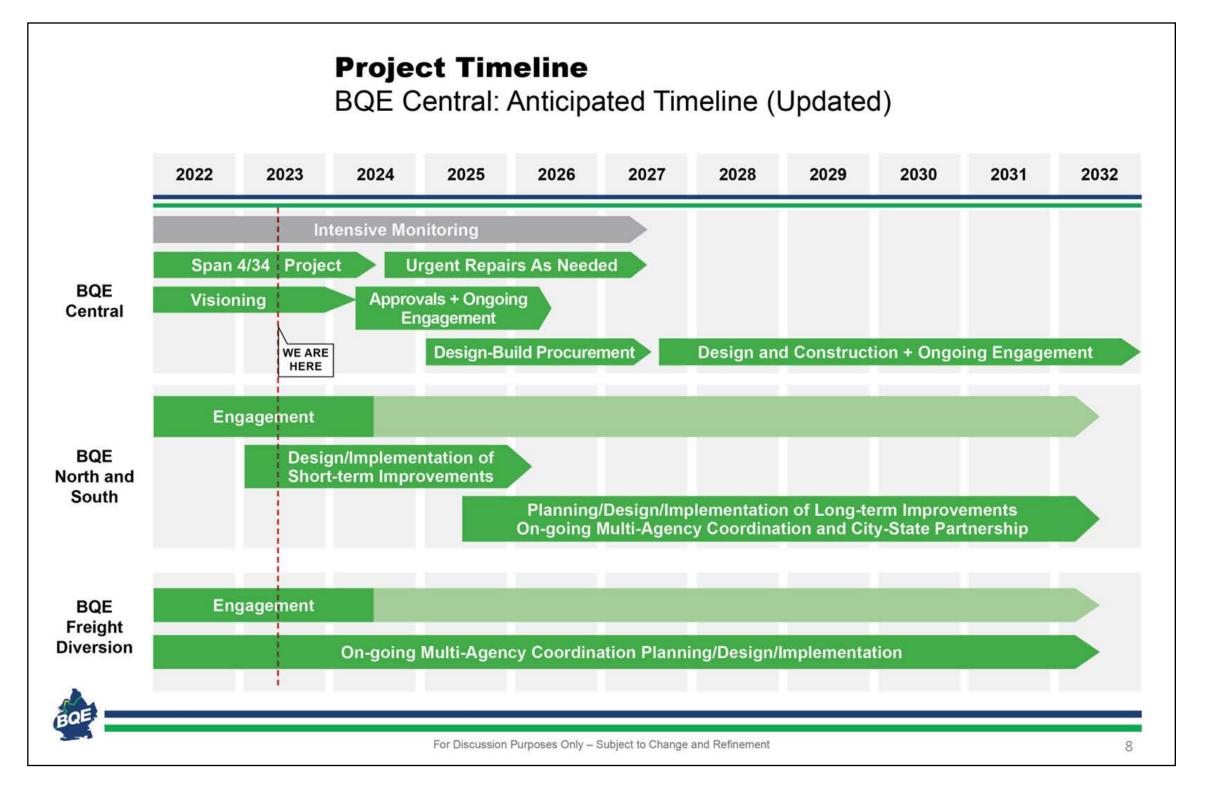
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Process Update: This slide shows where we are in our parallel schedule for BQE Central and BQE North and South. Please note that we are also making progress on the full length of the Brooklyn BQE Corridor

For BQE North and South: We completed our first two rounds of workshops in the Spring, mirroring the Central process. Currently, our community partners are leading grassroots efforts to gather feedback from their communities and our next Workshop series will take place in September.



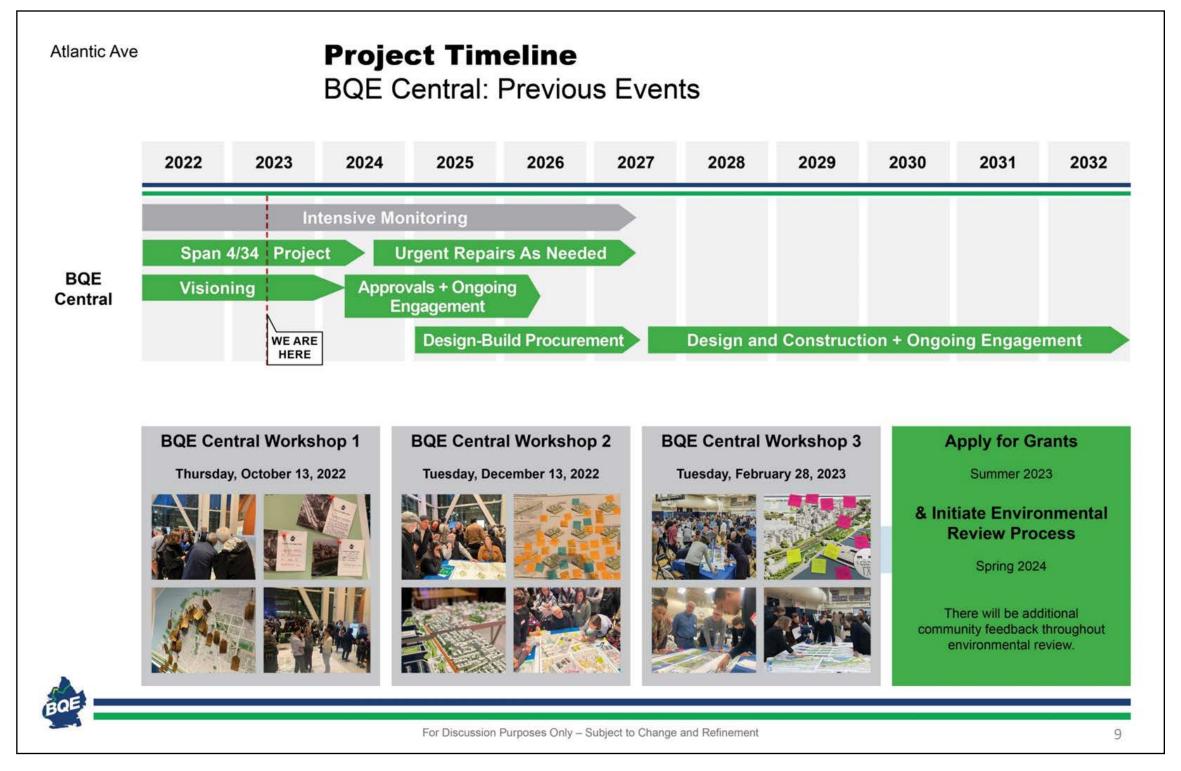




BQE Central: This winter, we completed our third round of engagement for BQE Central, excluding Atlantic Avenue. During this third round of engagement, we shared refined concepts for the Triple Cantilever and sections of the highway running all the way to Sands Street.

Tonight will conclude our final virtual workshop for Round 3. We are working with Cobble Hill Association and local elected officials to host an in-person meeting on this geography in the coming weeks.

Next steps: During the summer of 2023, DOT will continue to apply for federal infrastructure dollars as we prepare for a formal kick off to the Environmental Process in Spring 2024. During this period, there will be ongoing opportunities for engagement around BQE Central, North, and South.





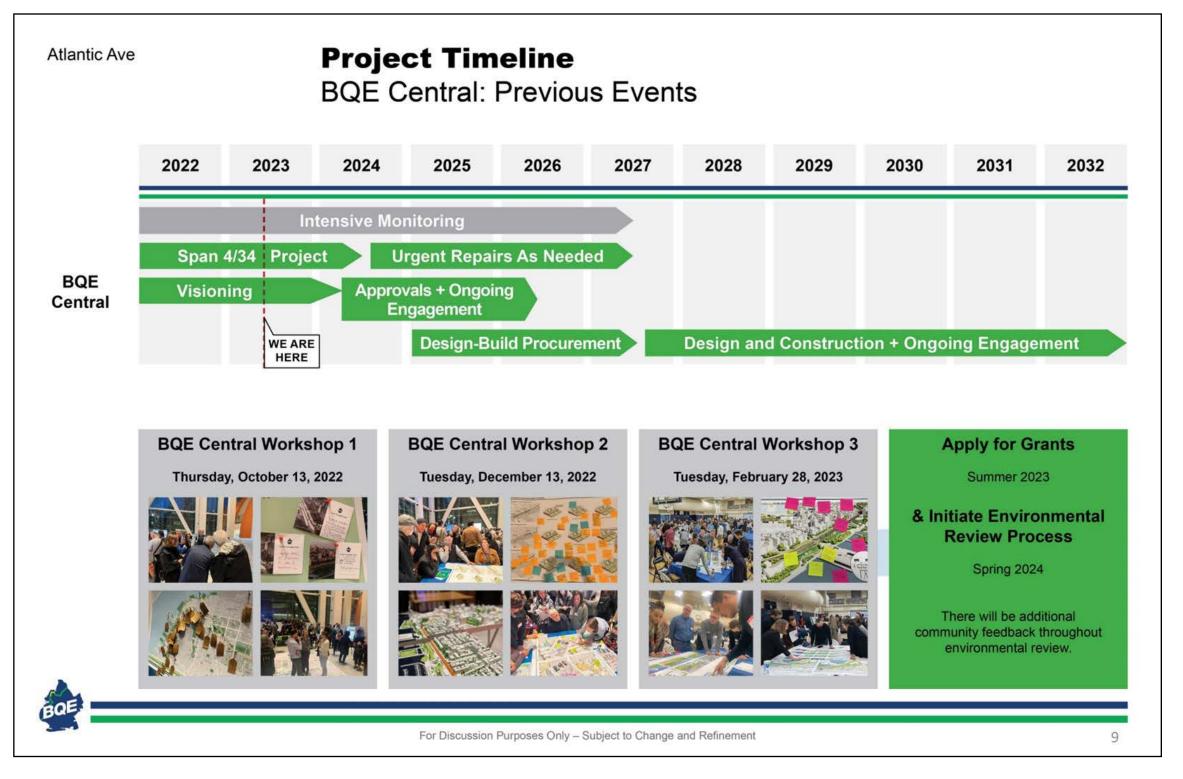


Timeline shift:

- DOT is working closely with federal highways and NYSDOT to make joint decisions about the BQE Central project.
- DOT determined with our federal and state partners that traffic modeling related to BQE Central must be complete in advance of beginning the environmental review process. This means that the start of the environmental review must shift from Fall 2023 to Spring 2024.
- DOT is on track to complete traffic modeling to review both two- and threelane configurations for BQE Central by February 2024, after which we expect to begin the environmental review process.

This change will ensure modeling is thorough, with consideration for congestion pricing and BQE North and South report recommendations.

The environmental review process will take two years to complete, and we expect final design and construction to begin in the second half 2027.

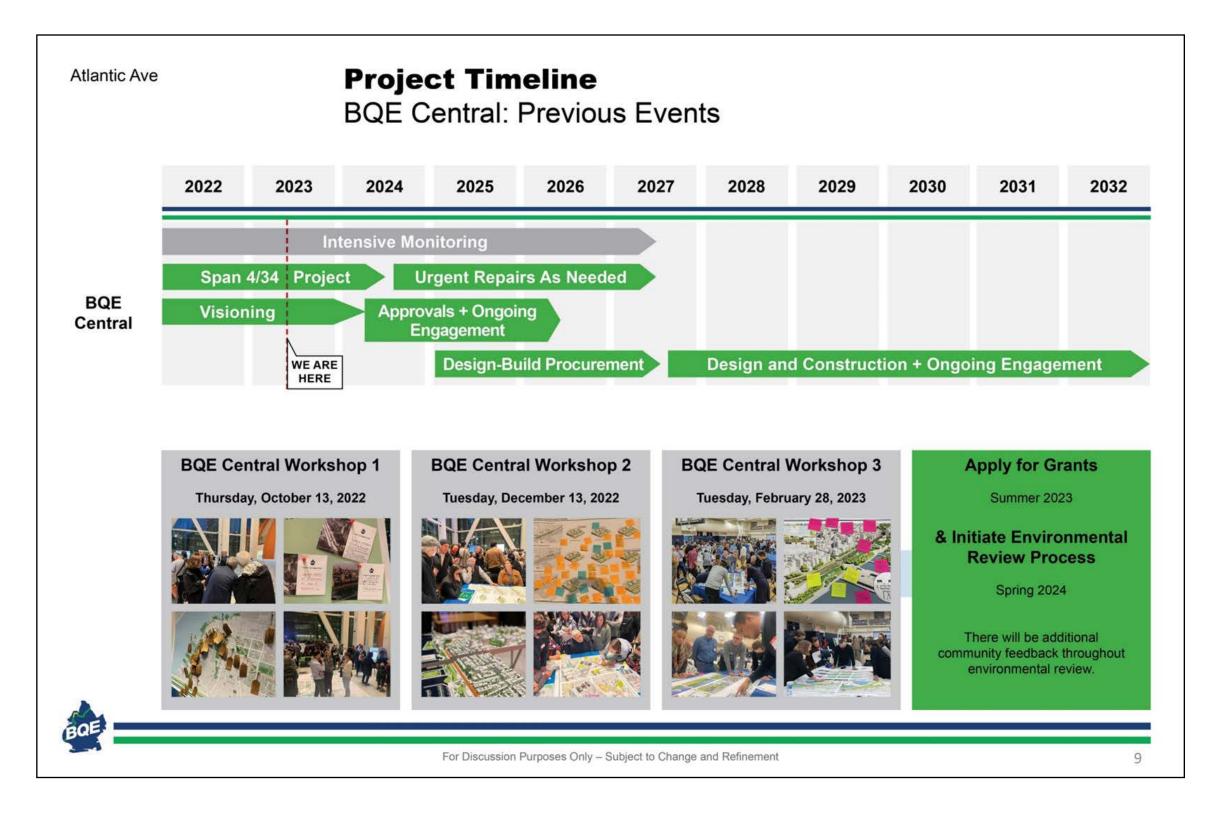






Throughout these processes, we will ensure the triple cantilever remains safe by continuing any urgent repairs to the Atlantic-to-Sands section as well as safety monitoring, including regular in-person inspections and sensors placed on the structure.

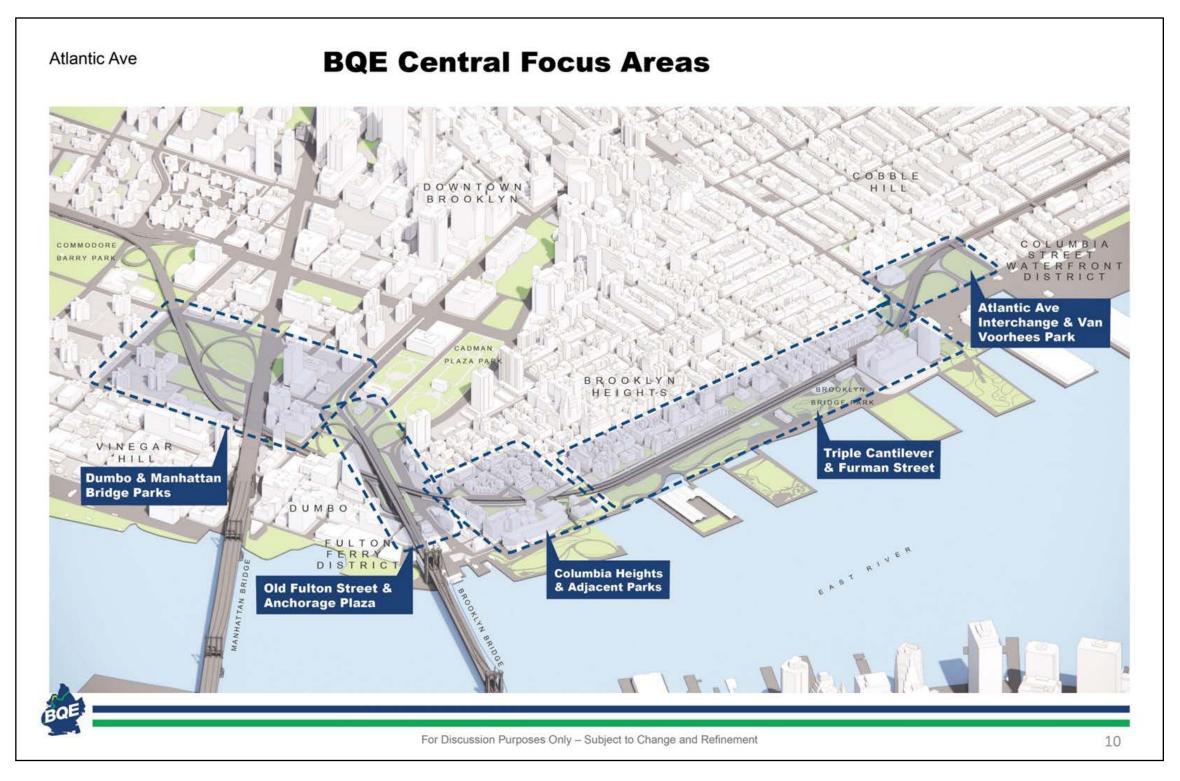
To learn more about the Environmental Review process, please watch the short video created by DOT that summarizes the process and how it relates to the ongoing planning around the BQE. DOT also recorded a webinar on Environmental Review in April 2023. Both resources are available online at nyc.gov/bge.







This presentation builds on the feedback that DOT heard during Round 3 of the BQE Central engagement on all five areas of BQE Central.



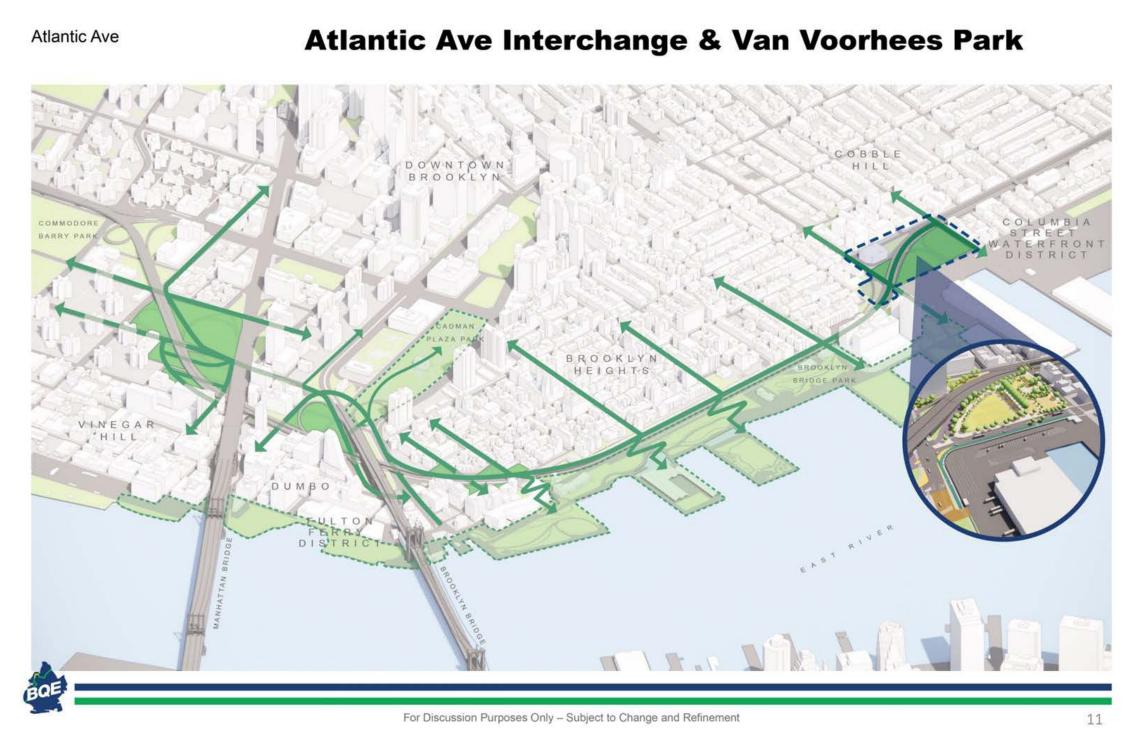




This presentation zooms in on the Atlantic Avenue interchange, which was not included in the March 2023 workshop.

Collectively, the team decided that we needed additional time to understand how to best enhance conditions for all modes at this complex interchange. Therefore, this presentation is intentionally focused only on the Atlantic Avenue interchange, also known as "Zone 5".

While DOT understands that the design decisions made at this location relate to other portions of BQE Central, the goal of this presentation focuses on getting feedback about a series of potential design concepts at this interchange to inform our approach as we move forward in this process.







Throughout this process, DOT has received a tremendous amount of feedback in virtual and in-person meetings, online surveys, and smaller stakeholder meetings.

What We Heard



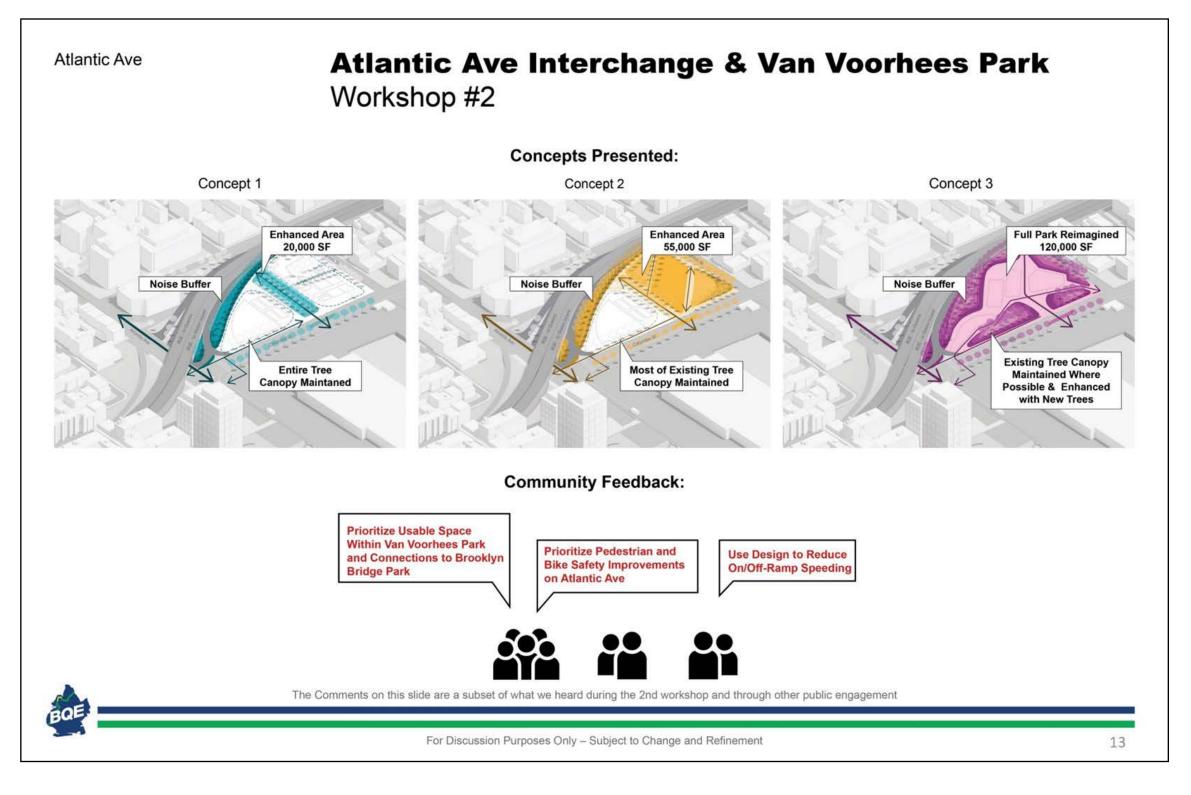
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During Round 2 of engagement for Atlantic Avenue, DOT presented three concepts. These concepts focused on upgrades to the existing Atlantic Avenue interchange on-off ramps, which could create a more unified Van Voorhees Park.

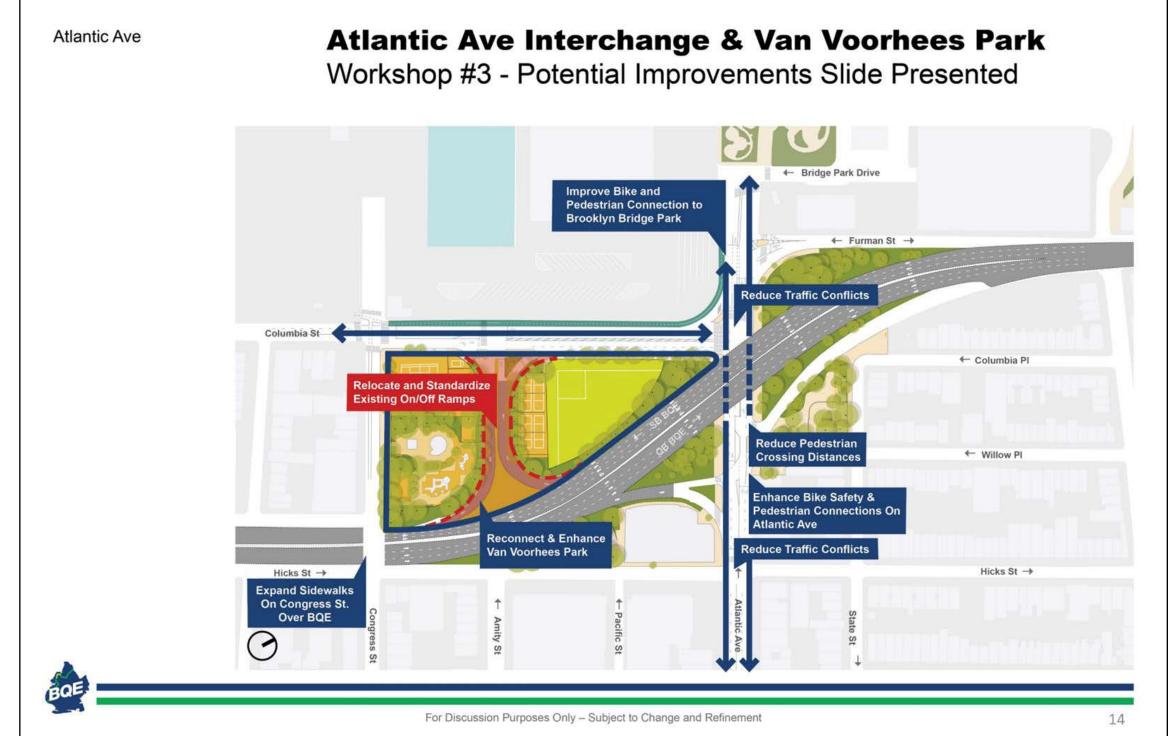
Participants expressed a strong desire to hear about more specific designs related to bike and pedestrian safety and more detail on how traffic can be balanced in this complex interchange.







In the last meeting, DOT reemphasized some of the potential core goals for Atlantic, focusing on safety and conflict reduction for both motorists and vulnerable users and provided a foundation for the engineering work that the team has been doing over the past several months.







This presentation will start by providing a shared understanding of the present challenges and conflicts at Atlantic.

Afterwards, the presentation will cover three potential design concepts.

Existing Issues



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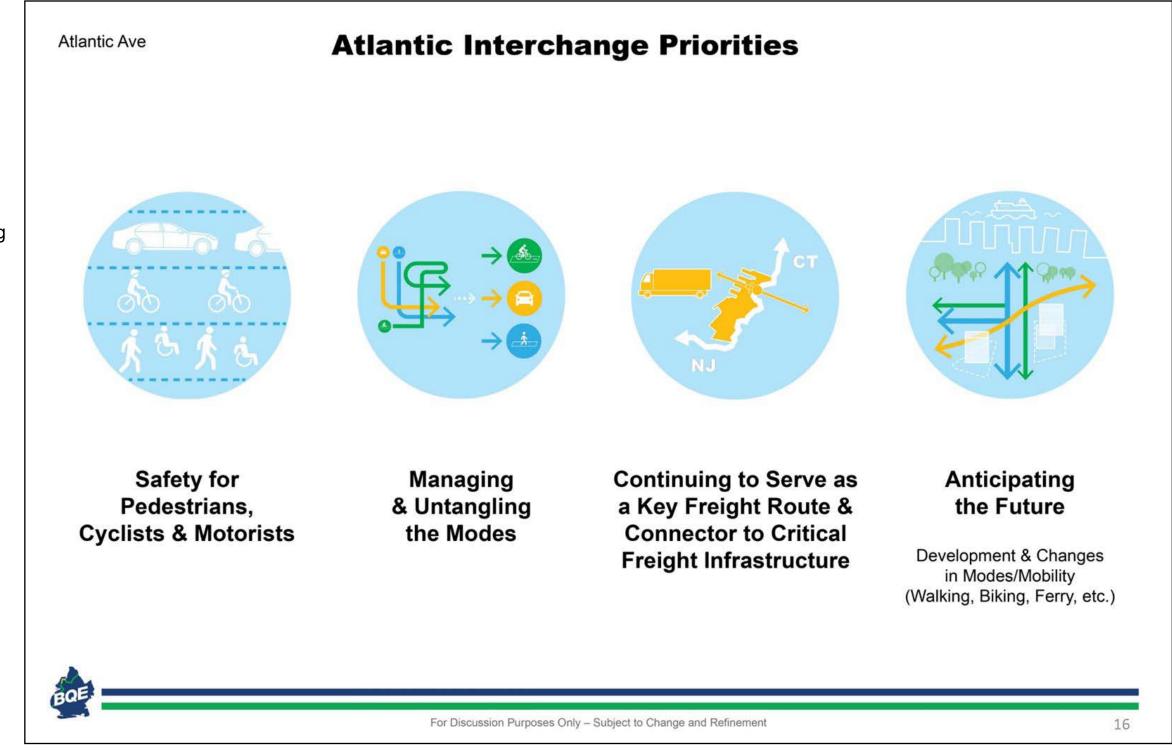


Based on the feedback that DOT has heard to date, our team wanted to reiterate some of the priorities that have shaped our work.

First, safety is paramount. Our efforts have focused principally on creating a design that ensures pedestrians, bicyclists, motorists, and trucks can interact safely at this location.

We understand that this interchange is trying to be many things at once, including serving as a critical regional access road, a truck route to the marine terminal, the fastest way to the south end of Brooklyn Bridge Park, and a bike route to the NYC Ferry.

While some workshop participants expressed a desire to close the interchange entirely, we believe that it's important to consider how to maintain and improve the interchange.



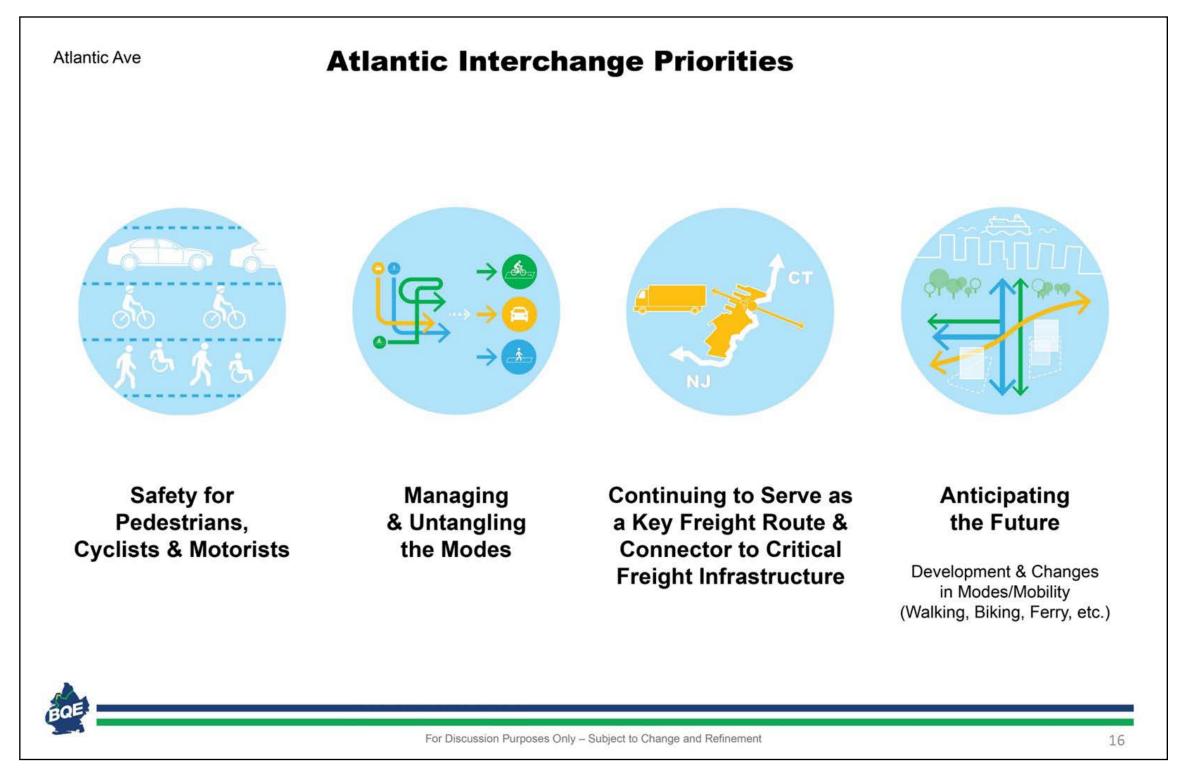




It is one of the only full interchanges in Brooklyn (with on and off ramps connecting to the highway in both directions); it is a mapped freight route; and it is a vital connection for the regional economy.

And lastly, we wanted to ensure that nothing in our planning precluded or presented hardships to future long-term planning for the waterfront.

It is unlikely that there is a perfect solution for this intersection that accommodates all needs. So, our work here has focused on being clear about trade-offs, balancing individual user needs, and prioritizing safety.





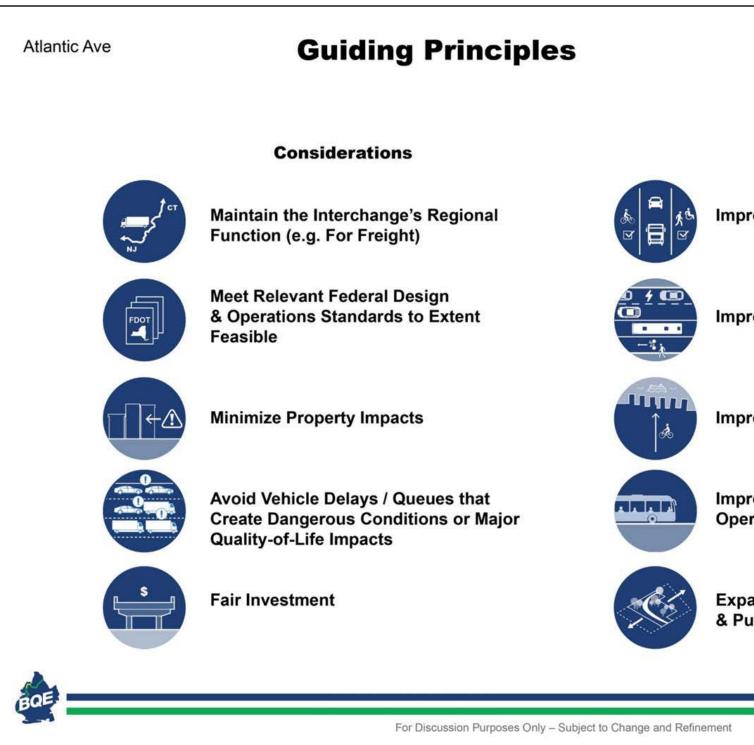


DOT established several key considerations that reflected stakeholder feedback, including the need to:

- Maintain the interchange's regional function for freight
- Meet relevant federal design standards to a feasible extent
- Avoid property impacts
- Avoid worsening current delays that result in back-ups on local streets and cause quality of life impacts
- And use our resources responsibly to fairly balance this investment with other work across the BQE and the city.
 - This state-owned bridge is in good condition and does not need a full reconstruction at this time.

These informed our community objectives including:

• Enhance safety for all users, improve connections to parks and the waterfront, and expanded or improving existing public spaces







Community Objectives

Improve Pedestrian Safety & Walkability

Improve Multi-Modal Safety

Improve Bike Connection to Waterfront

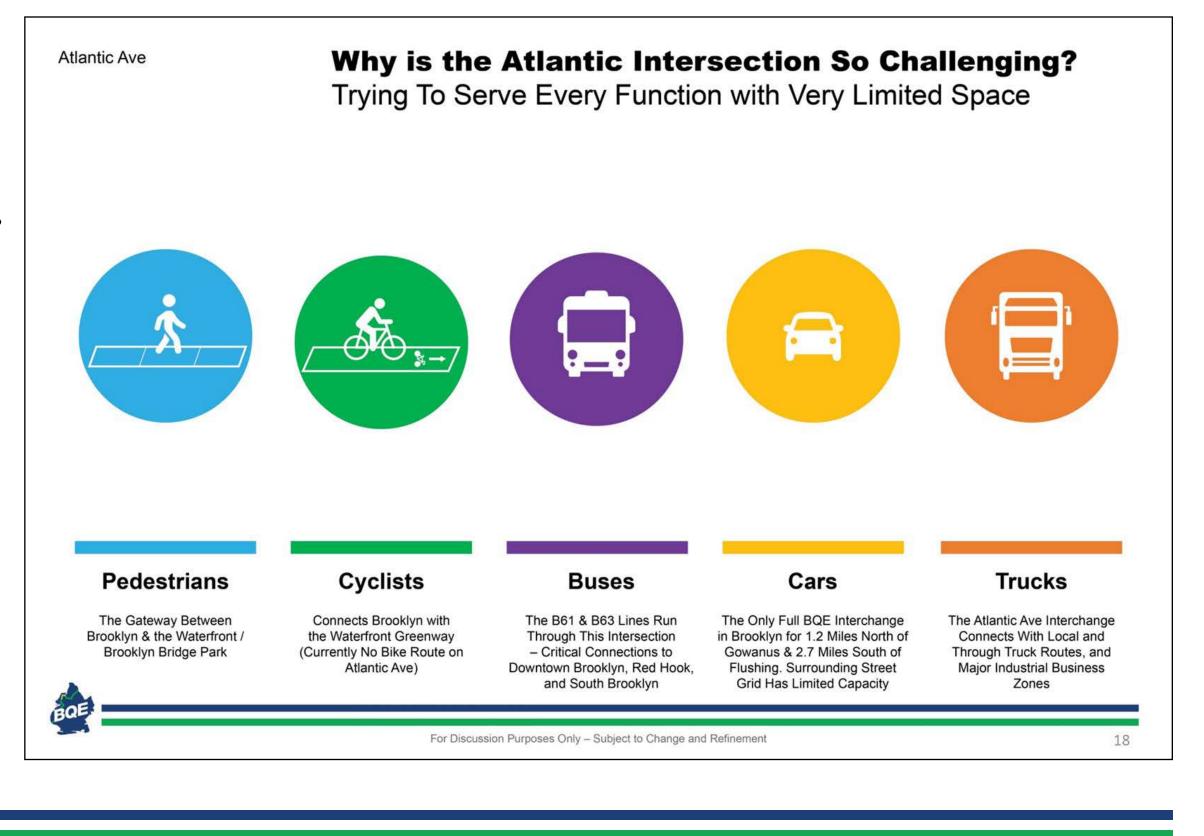
Improve or Maintain Existing Bus **Operations & Rider Experience**

Expand or Improve Parks & Public Spaces

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During our workshops, many people expressed that they wanted to better understand the complexities of this interchange.

This presentation is intended to discuss these specific challenges from the perspective of different modes: What does the interchange feel like for pedestrians? Bicyclists? Bus riders? Motorists? Truckers?







For pedestrians today, the Atlantic Avenue interchange feels uncomfortable, with long crossings, narrow sidewalks, and slip lanes that feel unwelcoming.

Many people described the experience of walking with their families to Brooklyn Bridge Park at rush hours as challenging due to the large number of vehicles turning from many directions.

Others noted that even when there is less traffic, the streets feel "highway-like".

What is Atlantic Ave Like for a ... Pedestrian? edestrian Island, Conflict with Bike Lane & Crossing igh Volume Intersection 2 85 ft of Crossing, 3 Street Crossings 225 ft of Crossing. **5** Crossings 108 ft of Crossings, **2 Street Crossings** Ped/Vehicle Conflict at Intersection of Hicks St & Atlantic Ave For Discussion Purposes Only - Subject to Change and Refinement





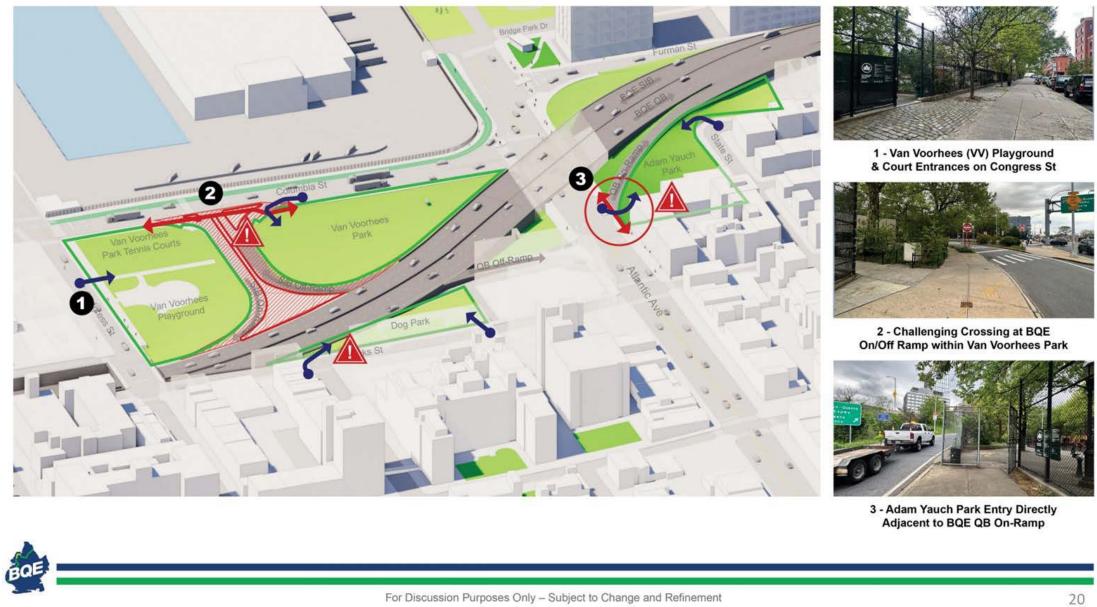


Community members also described the experience of walking a dog or taking a child to baseball practice at Van Voorhees Park as stressful.

A number of beloved community parks and recreational amenities sit squarely in the middle of an interstate highway interchange, making them challenging to reach.



What is Atlantic Ave Like for ... Someone Visiting Van Voorhees & Other Parks?





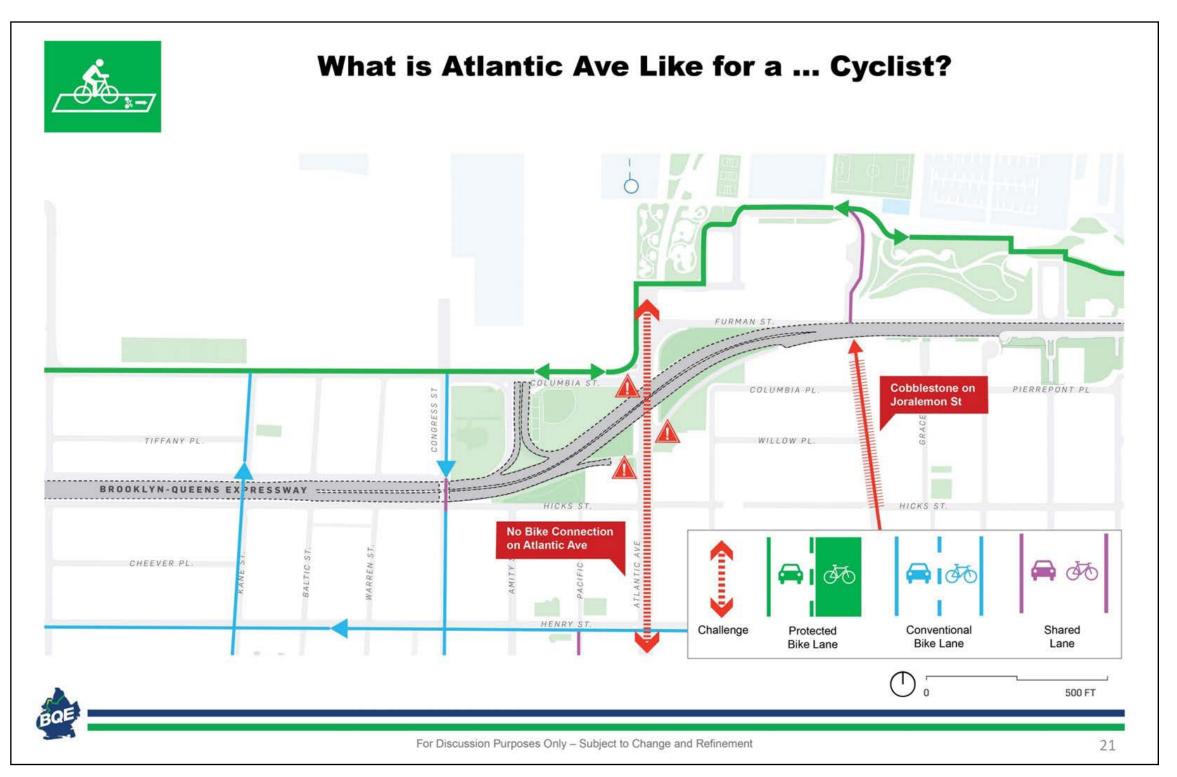


Cyclists described a similar journey.

Without a dedicated bike lane, traveling to Brooklyn Bridge Park and the Greenway can result in a series of challenging detours.

Many cyclists described traveling down Atlantic as the most intuitive route, only to dismount at the highway on and off ramps when the experience began to feel uncomfortable.

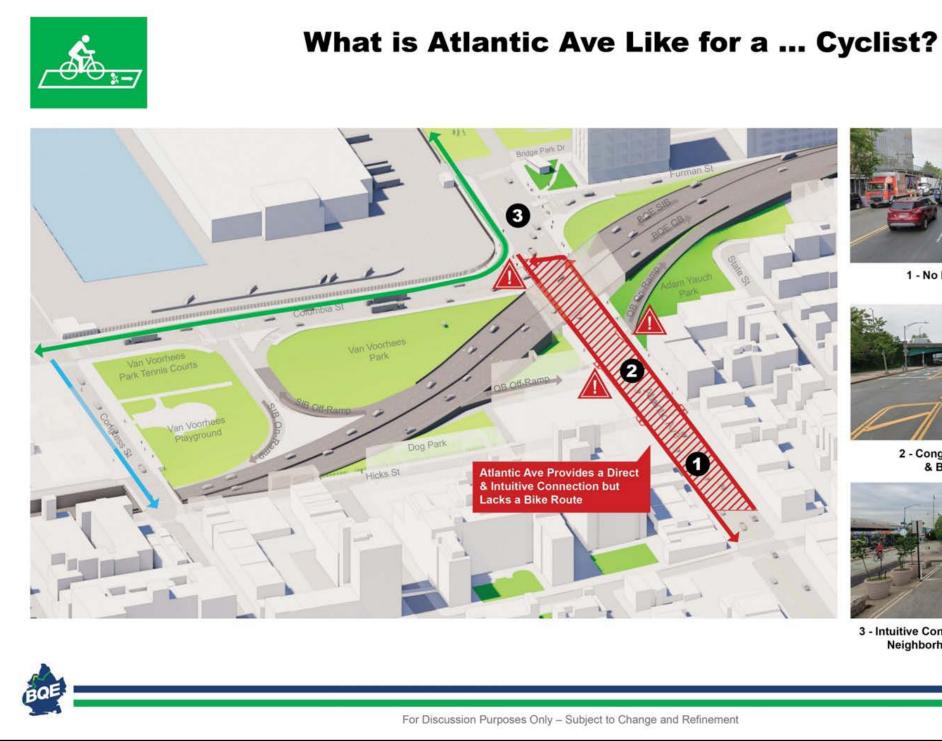
Others would rather brave the uneven cobblestones of Joralemon Street than jockey with traffic on Atlantic Avenue.







Despite its direct connection to Brooklyn Bridge Park, the Greenway, and the NYC Ferry, this area of Atlantic Avenue is inhospitable to bikes.











1 - No Bike Lane on Atlantic



2 - Congested Area on Atlantic & BQE Q/B On-Ramp



3 - Intuitive Connection from Park to Brooklyn Neighborhoods, but No Bike Route

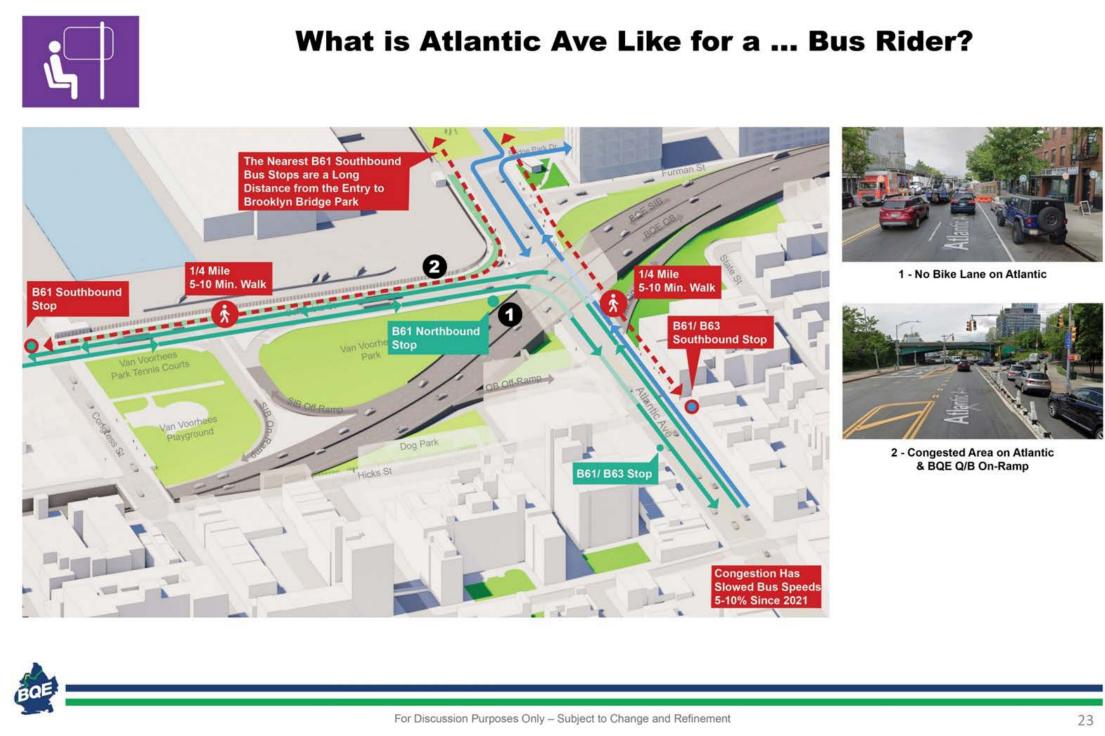
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For bus riders, both congestion and pedestrian access to and from bus stops can be challenging.

Since 2021, road congestion has slowed bus speeds by 5-10%.

And some bus stops in this area lack shelter or are directly adjacent to high-traffic intersections.

The closest southbound B61 bus stops are a long walking distance to Brooklyn Bridge Park





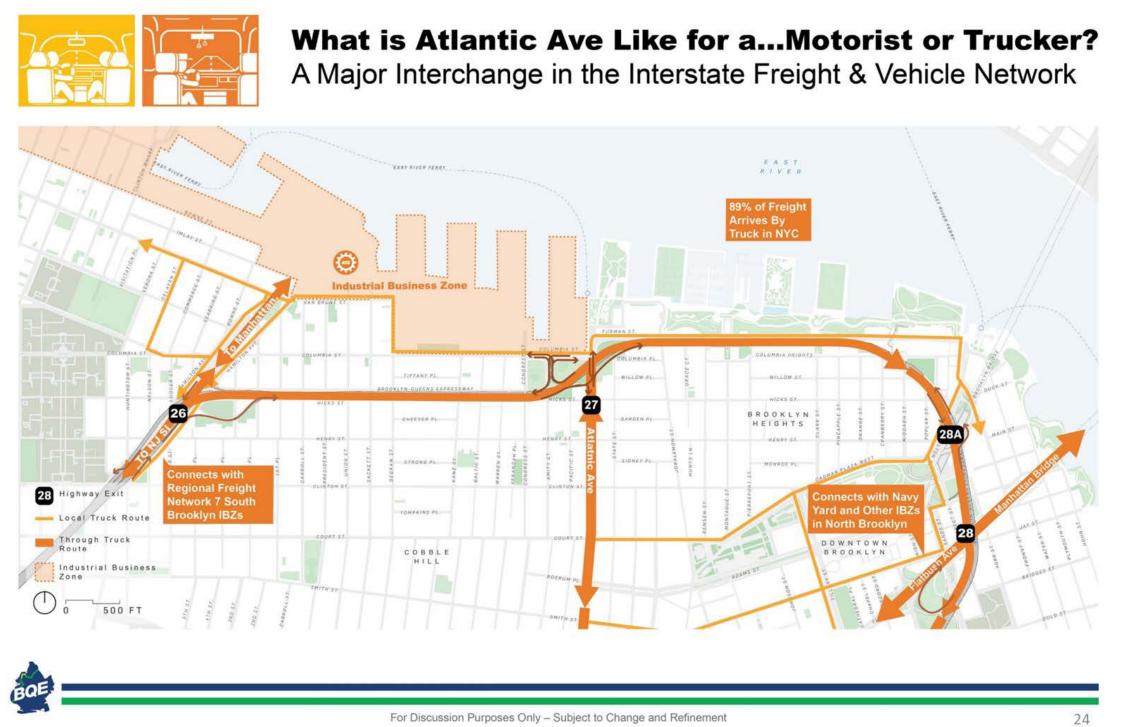


For cars and trucks, the interchange can be just as stressful.

Trucks bound for the Industrial Business Zones along the waterfront use Atlantic Avenue to access this area.

Atlantic Avenue is a mapped freight route. Atlantic Ave, Furman Street, and Columbia Street are the only truck routes that permit direct access to the waterfront, and more than 50% of trucks using this interchange are traveling within Brooklyn.

As DOT developed concepts for the interchange, the team had to seriously consider freight and logistics needs.







For both motorists and truckers, the existing on and off ramps present significant conflicts, not only with pedestrians and bicyclists, but also with other vehicles due to non-standard merge zones, limited sight distances, and other features that create driver stress and lead to conflicts.

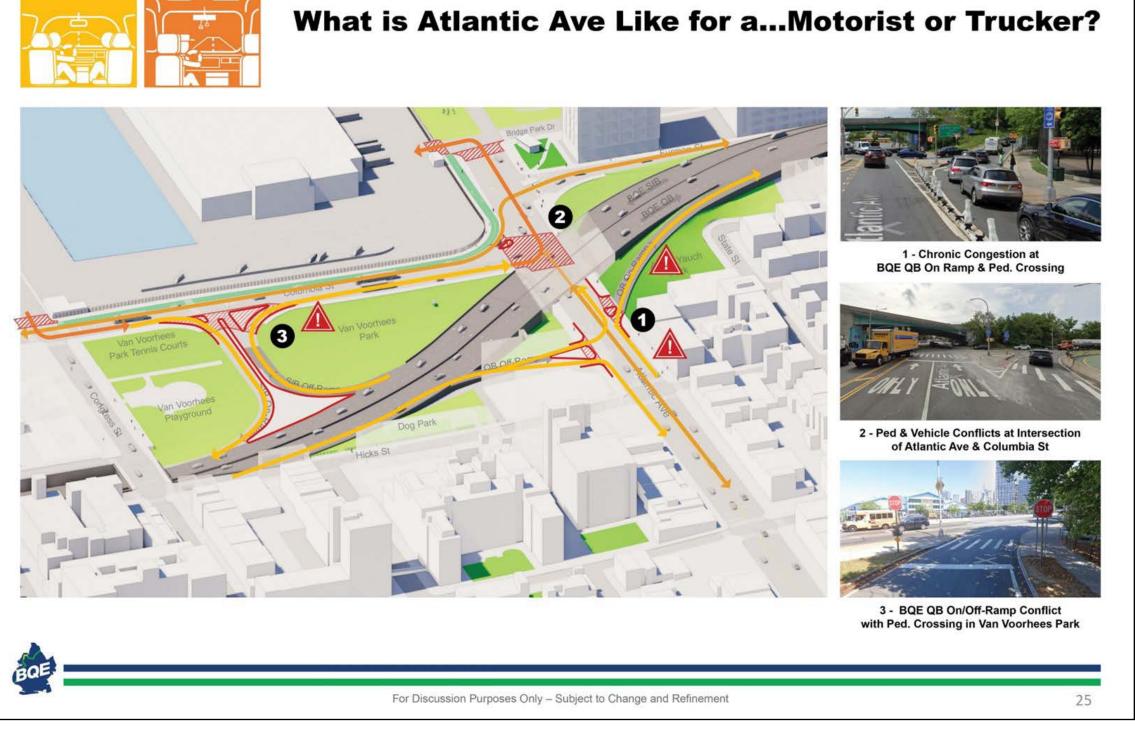
Based on crash data, the entire portion of Atlantic Avenue within the study area is part of a Vision Zero Priority Corridor. This means that a great amount of work has already been done on this corridor - and there's more to be done.

- DOT will add three mid-block crossings to Atlantic in Boerum Hill, and continues to study additional safety improvements throughout the corridor.
- Additionally, safety will continue to be prioritized through this project.

The historical crash data reflected what many people see day-to-day: significant conflicts points – such as at ramp merge areas and intersections – which tend to have the most crashes.

And non-standard features remain at this time, which cause operational challenges that may also contribute to crashes, delays, and congestion.

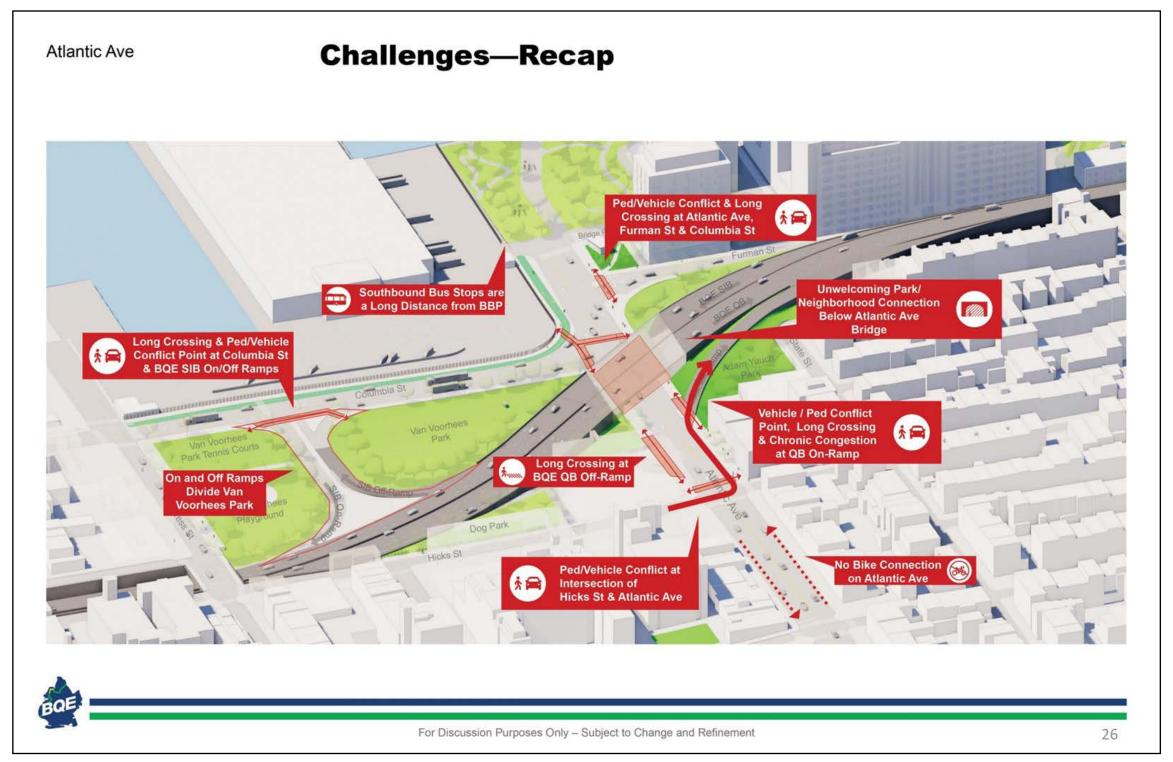








Collectively, the situation today feels unwelcoming and stressful for everyone. Our work looked at these challenges, conflict by conflict, and tried to resolve the most significant safety issues while balancing various needs and priorities throughout the interchange.

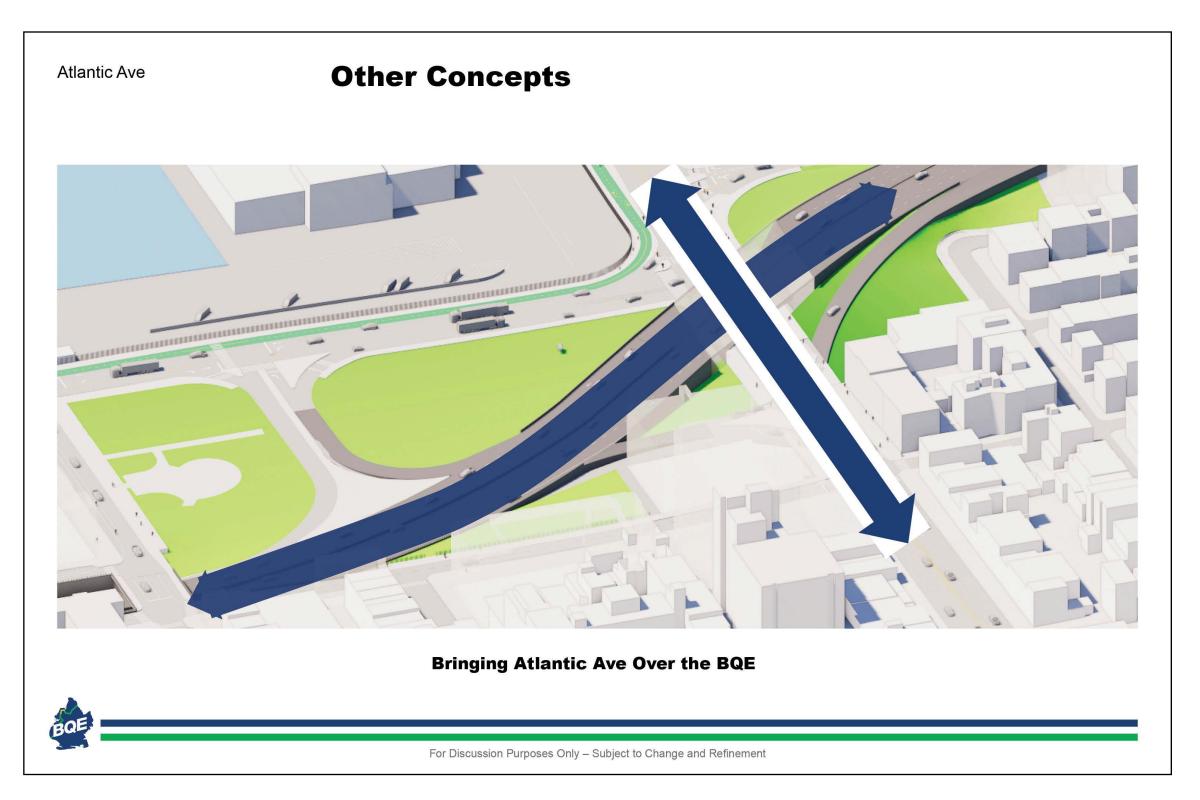






Before describing designs in more depth, note that there were some concepts that the design team considered but were not pursued further.

The team studied the idea of eliminating the current BQE bridge over Atlantic Avenue entirely and instead tucking the highway under Atlantic Avenue. As the BQE heads south from Columbia Heights, the highway would start its transition into the trench sooner. In order to make Atlantic Ave go over the BQE, this concept would require changing the slope of Atlantic Ave nearby in order to allow proper roadway slopes for cars and trucks driving on Atlantic.

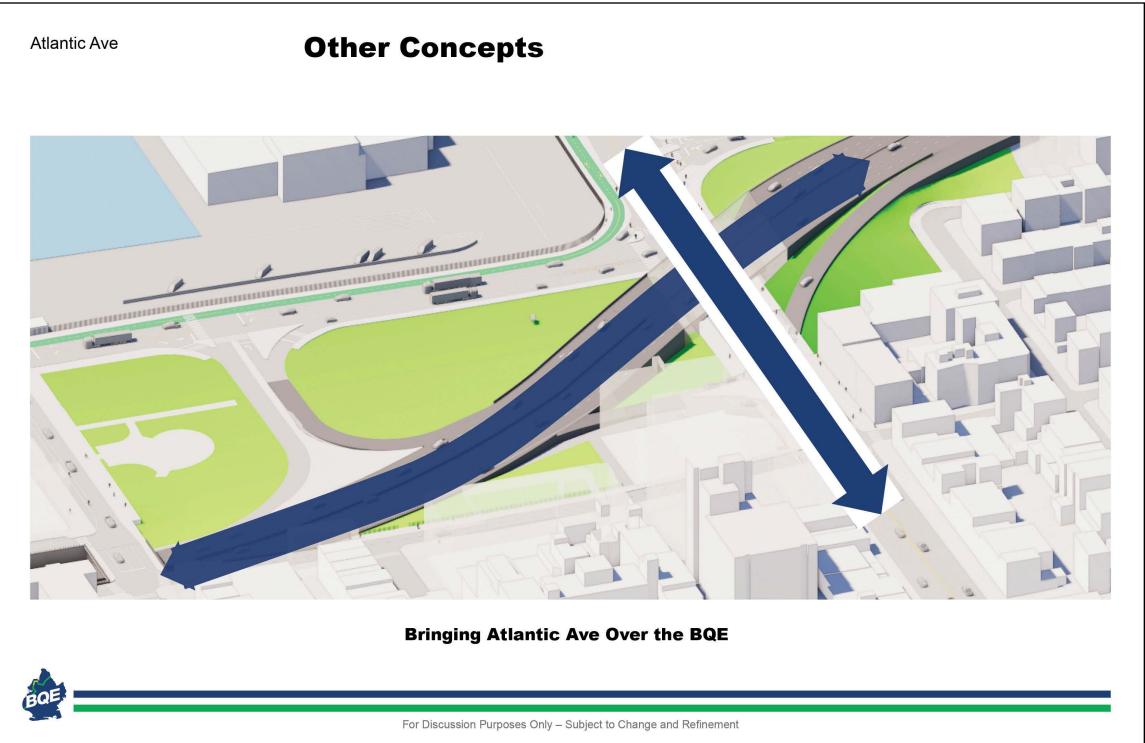






However, doing so posed several issues:

- First, a raised Atlantic Avenue would need to be reconstructed much higher than its existing level in some locations. This would impact some residential, commercial, and park properties. For example, a current entrance to a building could be in conflict with a raised road directly in front of it.
- Second, motorists on the BQE would experience substandard roadway sight lines from the new steeper slope, creating potentially dangerous driving conditions. It could actually be harder to see other vehicles on the same road.
- Third. DOT would encounter utility conflicts below the road, including the DEP sewer interceptor, causing challenges in construction.
- Fourth, the current Atlantic Avenue bridge, meaning the part of the BQE that bridges over Atlantic, is in fine structural condition and reconstruction would add unnecessary construction cost at this point in time.
- Finally, this solution would impact the overall schedule.

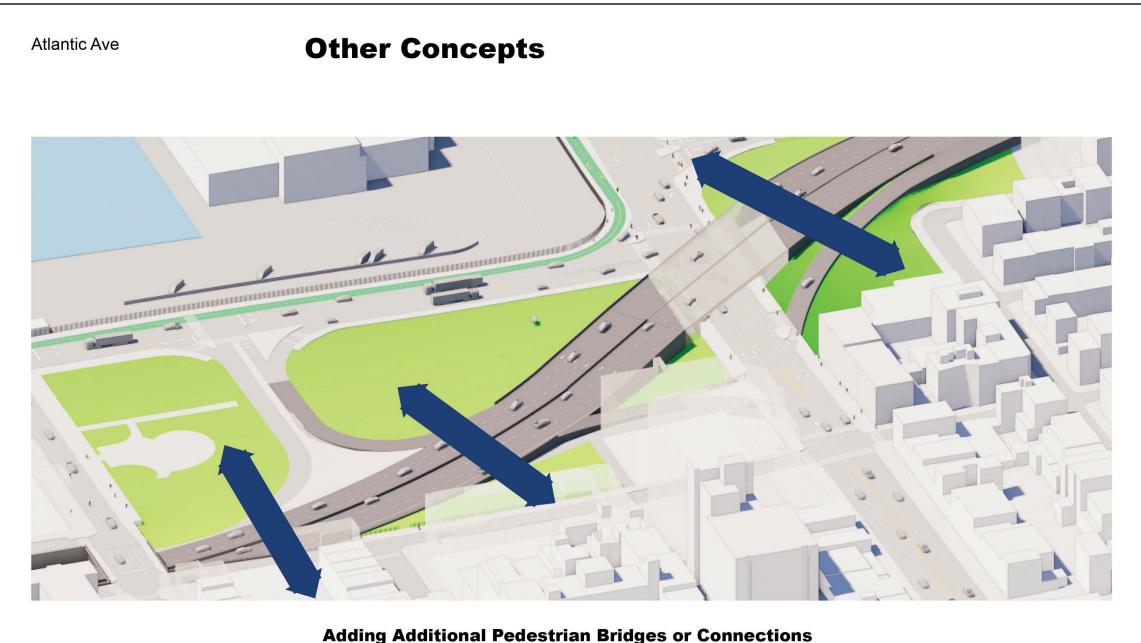






The team also explored adding pedestrian bridges and connections over the BQE in its current location.

- Because of the BQE's slope upwards, from the Cobble Hill trench to Columbia Heights, any pedestrian bridge would need to be quite high, in order to accommodate both the highway height and additional room for cars and trucks to pass under.
- This would make a pedestrian's journey from one side of the BQE, over a new pedestrian bridge, to the other side of the BQE—rather long and cumbersome. And our experience throughout New York City is that pedestrian bridges are underutilized as crossings.
- Additionally, ramps and steps up to a pedestrian bridge would take up room on either side of the BQE at street level, including potentially space from Upper Van Voorhees Park, which is currently used as a dog run.
- And similar to the previous considered concept, adding these connections would impact the overall production schedule and costs.



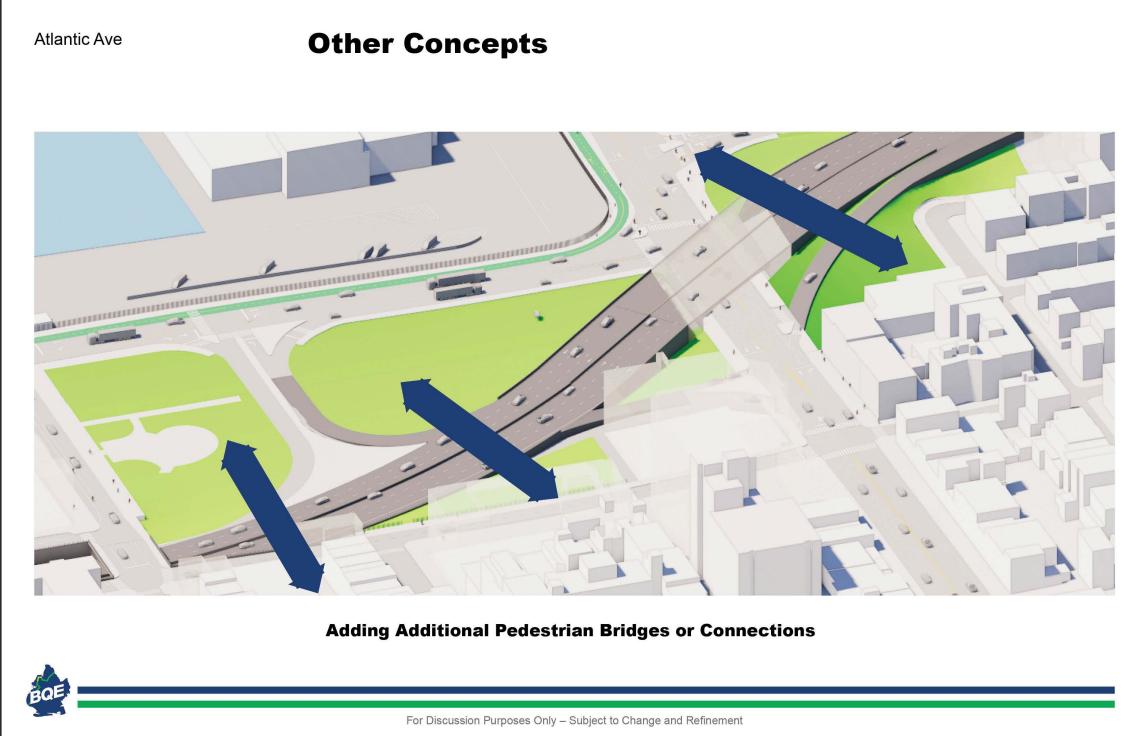
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On the other hand, DOT did study the removal of the Queens-bound on-ramp at Atlantic and this presentation will discuss this option, at Concept 3.

In the interest of safety, fair use of resources, and constructability, DOT is focusing this presentation on other potential concepts.







Focusing on safety and enhanced connections for all users, the team pressuretested numerous ideas.

Atlantic Avenue Design Concepts



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The team developed three concepts for the Atlantic Avenue interchange. The presentation will show the concepts a high level and then zoom in on each in greater detail. Within these concepts, there are several ideas and trade-offs at each individual location.

On all of the following slides, orange represents BQE off-ramps and yellow represents BQE on-ramps

Atlantic Ave **Road Configuration Concepts Potential** Concept 2 Concept 1 1A - Furman St in Existing Location Same as Concept 1 plus the addition of a BQE QB on-ramp 3A - Same as Concept 2 with the addition of the BQE SIB The BQE SIB off-ramp is relocated from Columbia St starting at Hicks St and connecting into the BQE QB to intersect with Atlantic Ave near Furman St on-ramp at Atlantic Ave 1B - Split Furman St Alternatively, Furman St is split by the BQE SIB offramp, allowing northbound traffic on Columbia St to travel directly onto Furman St (Illustrated on following slides) For Discussion Purposes Only - Subject to Change and Refinement







Concept 3

- off-ramp connecting into Congress St. Congress St is converted into a two-way street
- 3B Same as 3A, but considers the closure of the BQE QB on-ramp at Atlantic Ave

Proposed On-Ramp Structure Proposed Off-Ramp Structure

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There is a set of baseline improvements that is shared across all of these concepts

For pedestrians and cyclists, all of the concepts presented tonight have:

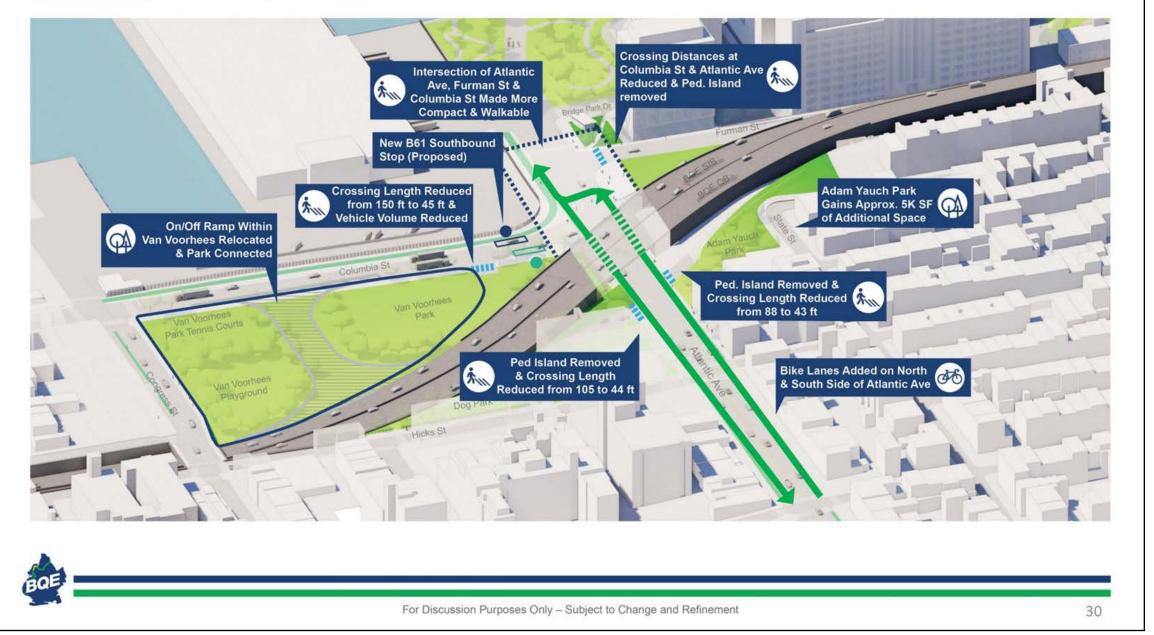
- Shorter, more compact crossing distances that limit slip lanes and turn lanes and improve the pedestrian crossing experience
- Configurations that expand and unite Van Voorhees Park
- Additional crossings at key pedestrian routes
- · Buffered or protected bike lanes along this stretch of Atlantic Avenue in both directions

Additionally, in order to allow better access to Brooklyn Bridge Park, a new southbound B61 bus stop on the west side of Columbia St is being considered.



All Concepts

Potential Pedestrian & Cyclist Improvements







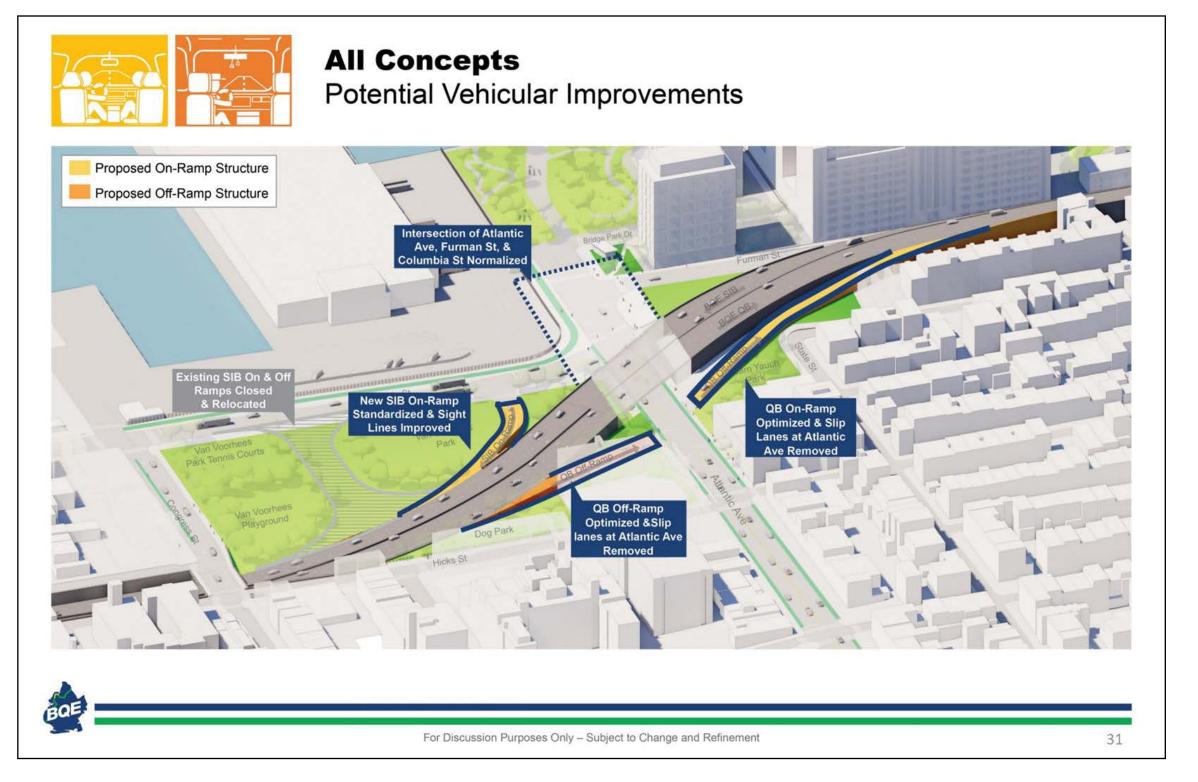
For motorists, all concepts improve the Queens-bound on and off-ramps to align with federal safety standards.

The existing Staten Island-bound on- and off-ramps are relocated, improving sight lines and safety, and allowing for the unification and expansion of Van Voorhees Park.

The double Staten Island-bound on- and off-ramp is removed from the middle of park, with the on ramp relocated as flush as possible with the highway, and the off-ramp is moved along Furman St, to empty onto Atlantic Ave.

These concepts all strive to improve the intersection of Atlantic Ave, Furman St, and Columbia St.

In all concepts, the existing BQE bridge over Atlantic Ave would be kept. It is in very good condition and does not need replacement at this time.







To better understand how each of these concepts would operate, this presentation will act like a virtual walking tour of each of the key points and intersections along the interchange, starting with Concept 1.

Concept 1

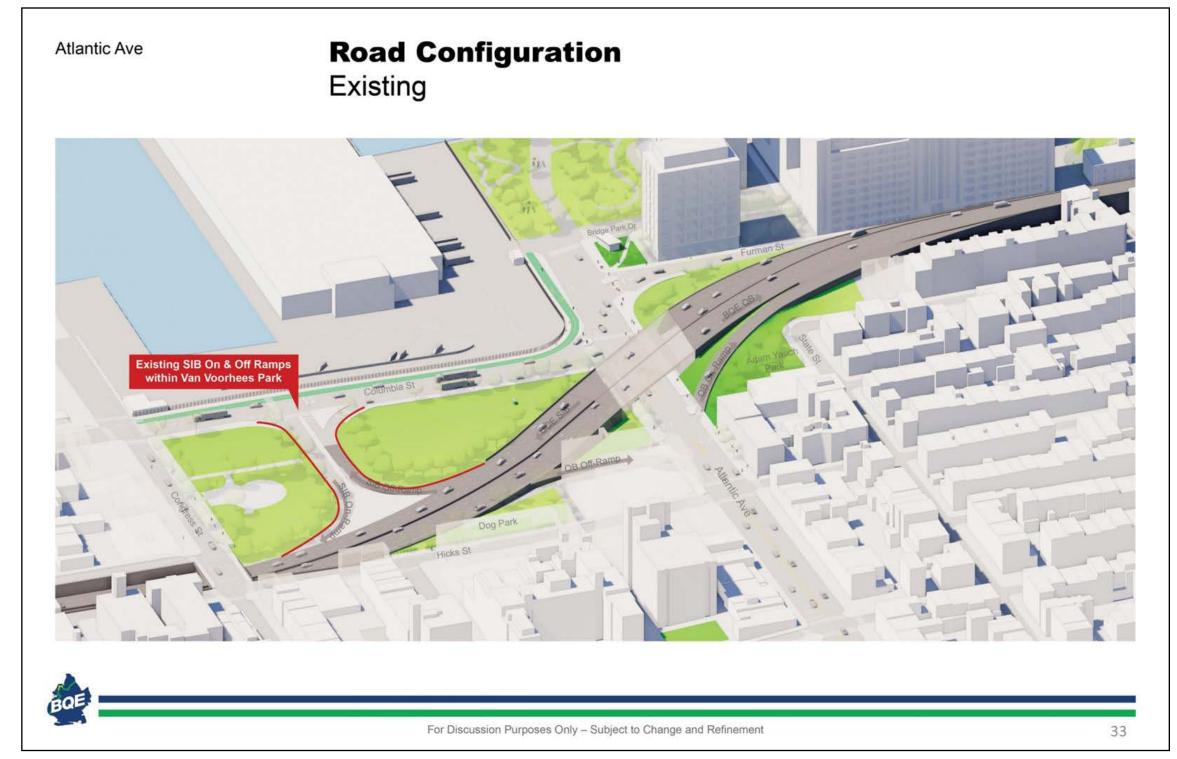


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For all slides in this sequence, the presentation will shift between an image of the existing condition and then the proposed.

The image on this slide shows conditions as exist today.







Concept 1 is the most similar to what was shared previously in BQE Central Round 2 workshops.

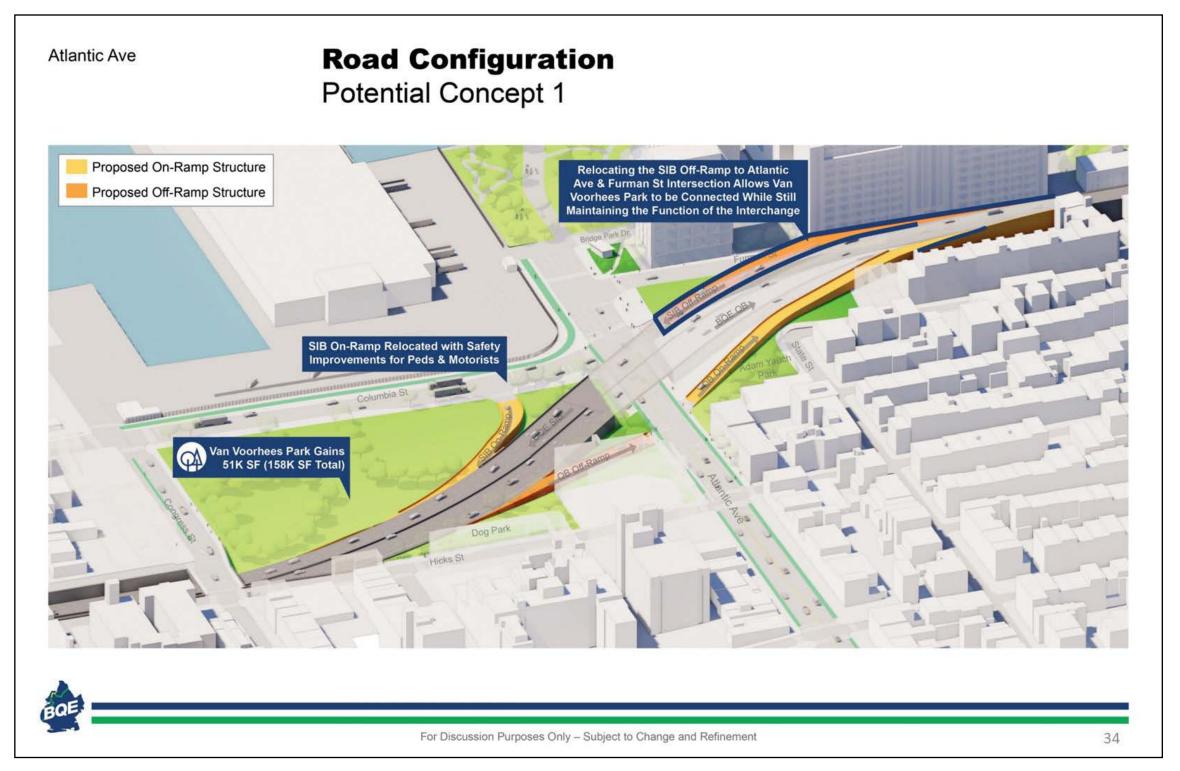
Please note: no decision has been made on whether BQE Central will be two or three lanes. DOT is currently analyzing traffic data and will make this decision, in consultation with NYSDOT and FHWA, in Spring 2024.

· Tonight, we are showing all concepts with three lanes to demonstrate the maximal impact of taking traffic off local roads should we pursue these concepts.

This concept would relocate and standardize the Staten Island-bound on- and off-ramps currently located in Van Voorhees Park.

The new Staten Island-bound off-ramp would be relocated to the north side of Atlantic Ave and the new Staten Islandbound on-ramp would be shifted further north within Van Voorhees Park.

By relocating these two ramps, Van Voorhees Park can be connected and increased in size.

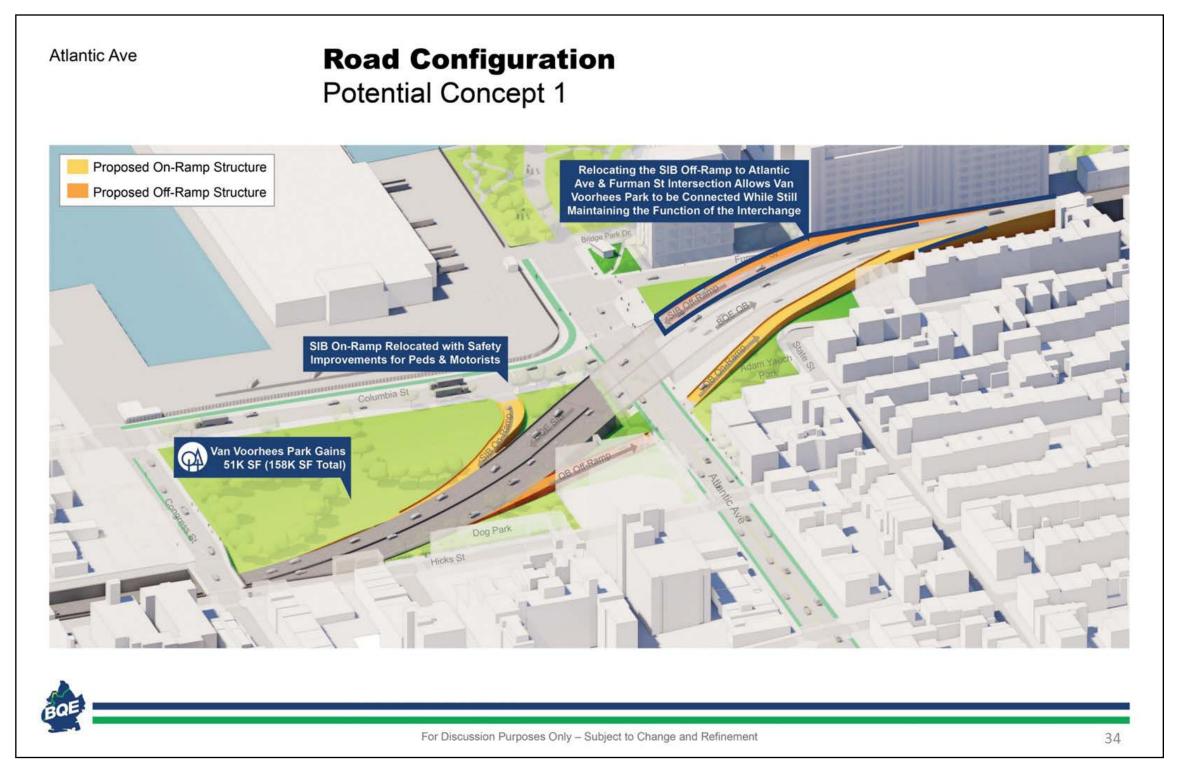






Additionally, pedestrian crossing distances would be greatly reduced through the removal of slip lanes at the Queens-bound on and off ramps on Atlantic Ave. This would markedly improve pedestrian safety at these locations by reducing the number of crossings and the length of crossings.

Bike lanes on the north and south sides of Atlantic Ave would permit direct access to the waterfront greenway and Brooklyn Bridge Park.

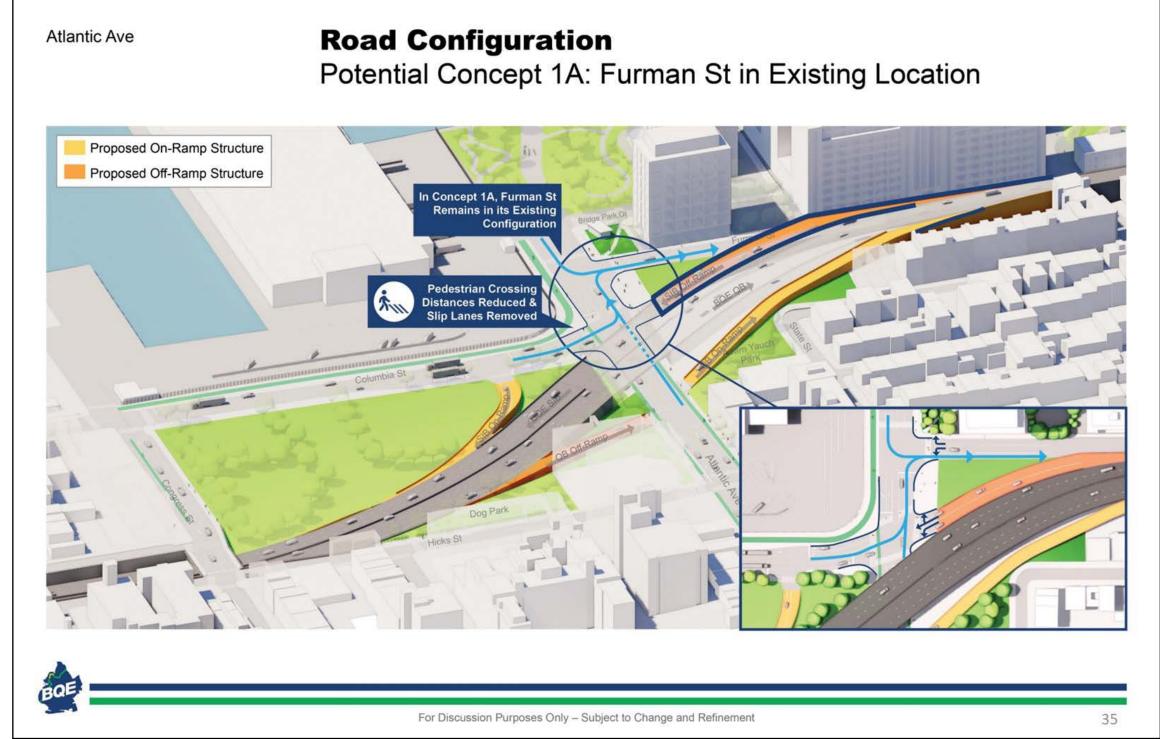






There are two potential variations in Concept 1 around the Atlantic/Columbia/Furman intersection.

In concept 1A, Furman Street would remain in its existing location, with shorter crossing distances and the removal of the pedestrian island.

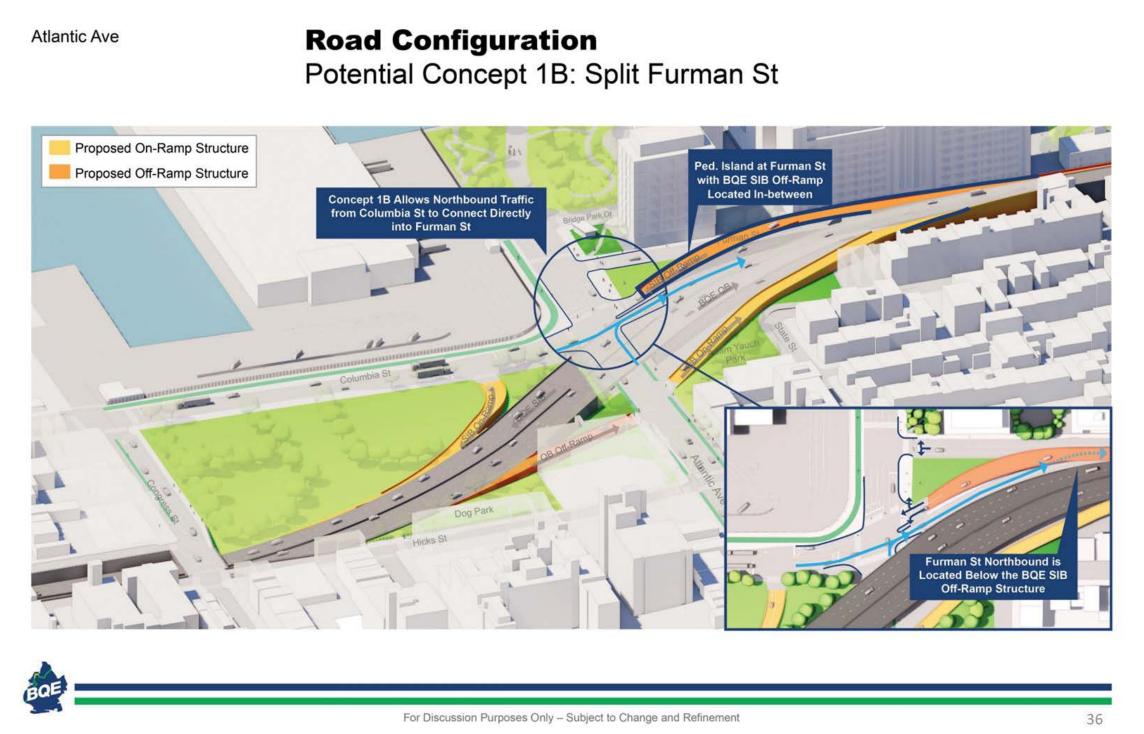






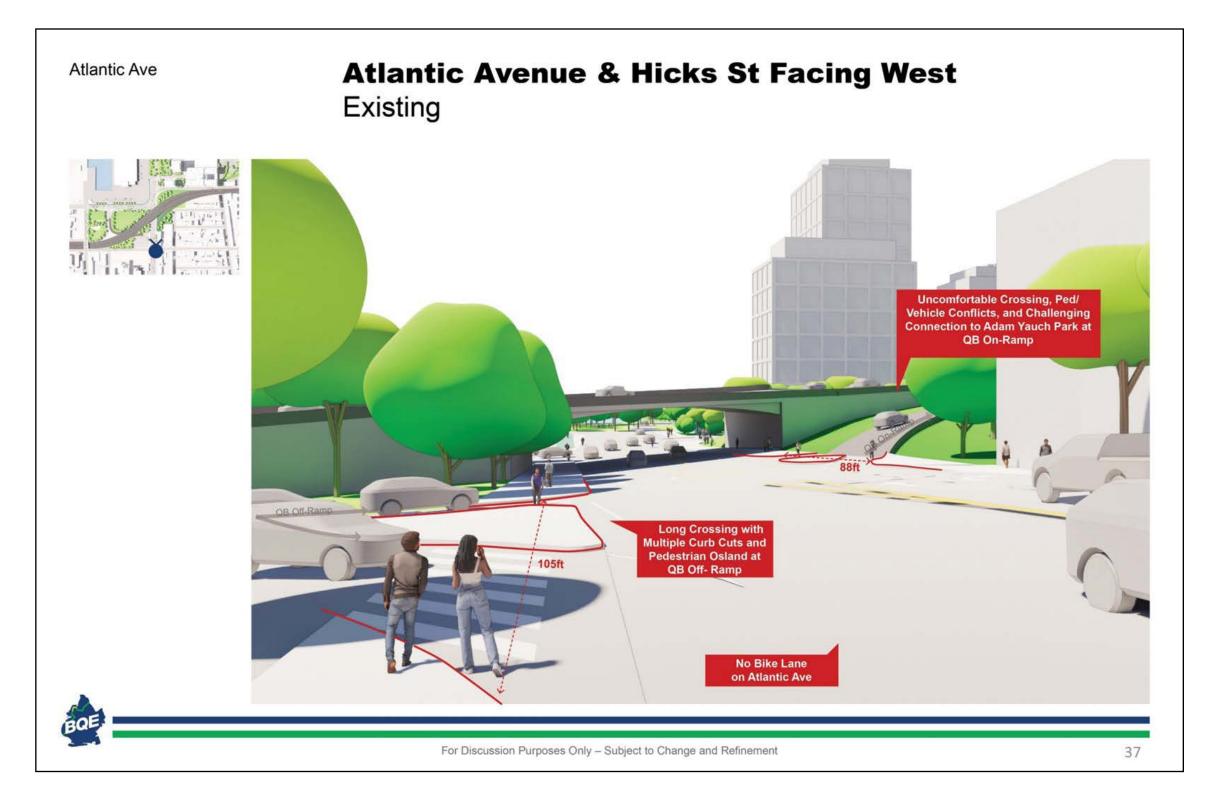
In Concept 1B, the northbound lane of Furman Street would be shifted to be adjacent to the BQE structure, with the Staten Island-bound off-ramp sitting in between. This would allow for northbound traffic coming from Columbia Street to directly connect into Furman Street.

This would result in fewer conflicts with pedestrians since most of the traffic movements would be straight ahead.





This image shows what the intersection of Atlantic at Hicks looks like today, looking down Atlantic Ave towards the water. It can feel daunting and unwelcoming for pedestrians and cyclists.

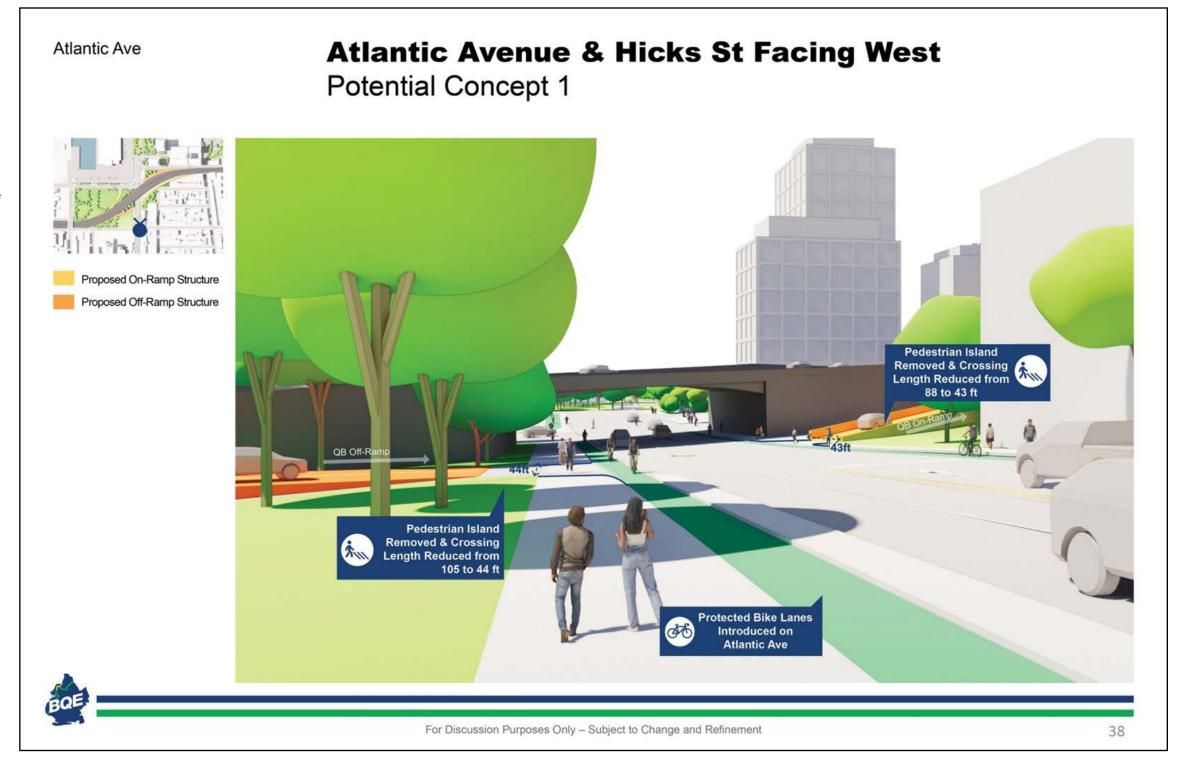






In Concept 1, crossing distances would be reduced and pedestrian safety would be improved through the removal of slip lanes at the existing Queens-bound on and offramps.

Additionally, a bikeway would be added to both sides of Atlantic Avenue to permit direct access to the greenway and Brooklyn Bridge Park.



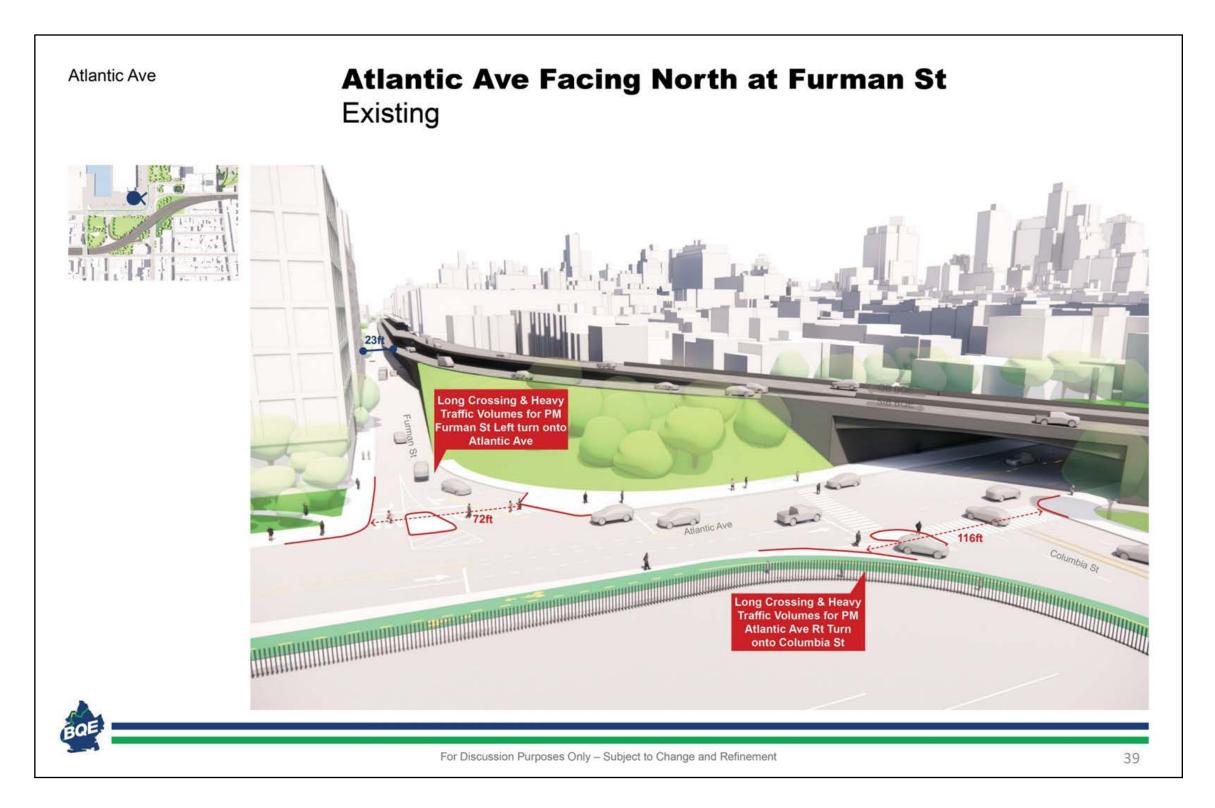




At Atlantic Avenue and Furman Street, long crossings and a challenging intersection layout today create issues for all users.

• In the evenings, heavy right turns onto Columbia Street conflict with pedestrians heading to the park and bus stops.

Note, there is currently 23' between the highway and adjacent buildings along Furman Street at the narrowest point.





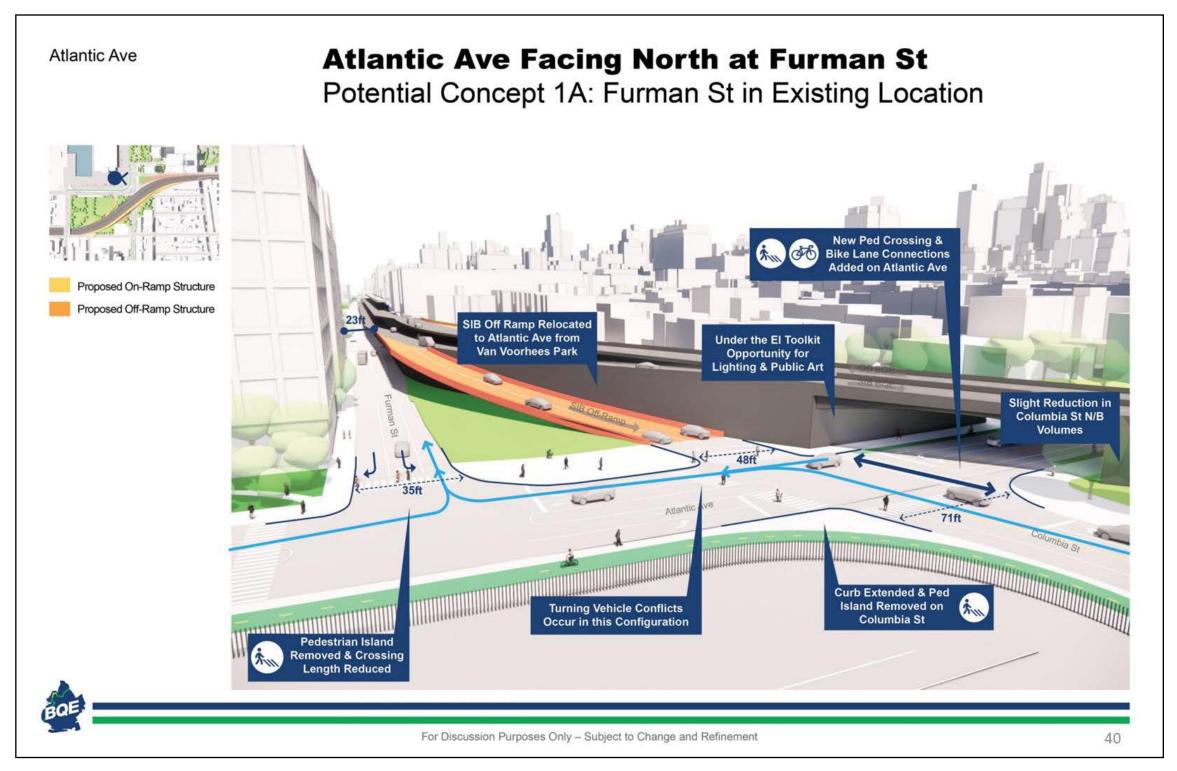


In Concept 1A, the intersection geometry is normalized, with Staten Island-bound traffic exiting at Atlantic Avenue. Curb extensions reduce turning speeds and shorten crossing distances. Furman Street is maintained in its current configuration.

In particular, DOT wants to highlight the new pedestrian crossings across Atlantic Avenue to Furman Street.

This concept would maintain the current distance of 23' between the highway and adjacent buildings on Furman Street.

Note that using the NYC DOT "Under the EI" toolkit, we have the opportunity to add new lighting, public art, and other improvements to brighten the space under the overpass.



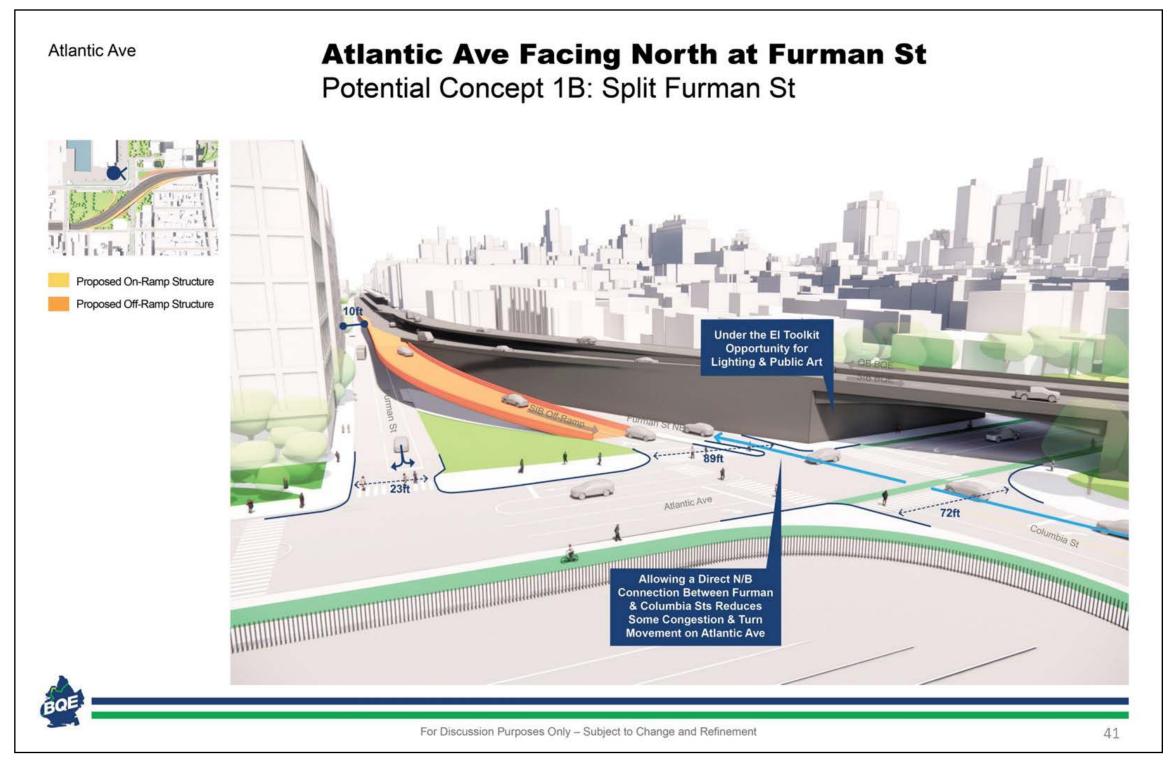




In Concept 1B, Furman Street is split to allow for more direct access from Columbia Street to Furman Street heading north. This would reduce congestion.

As in Concept 1A, we can consider new pedestrian crossings across Atlantic Avenue to Furman Street.

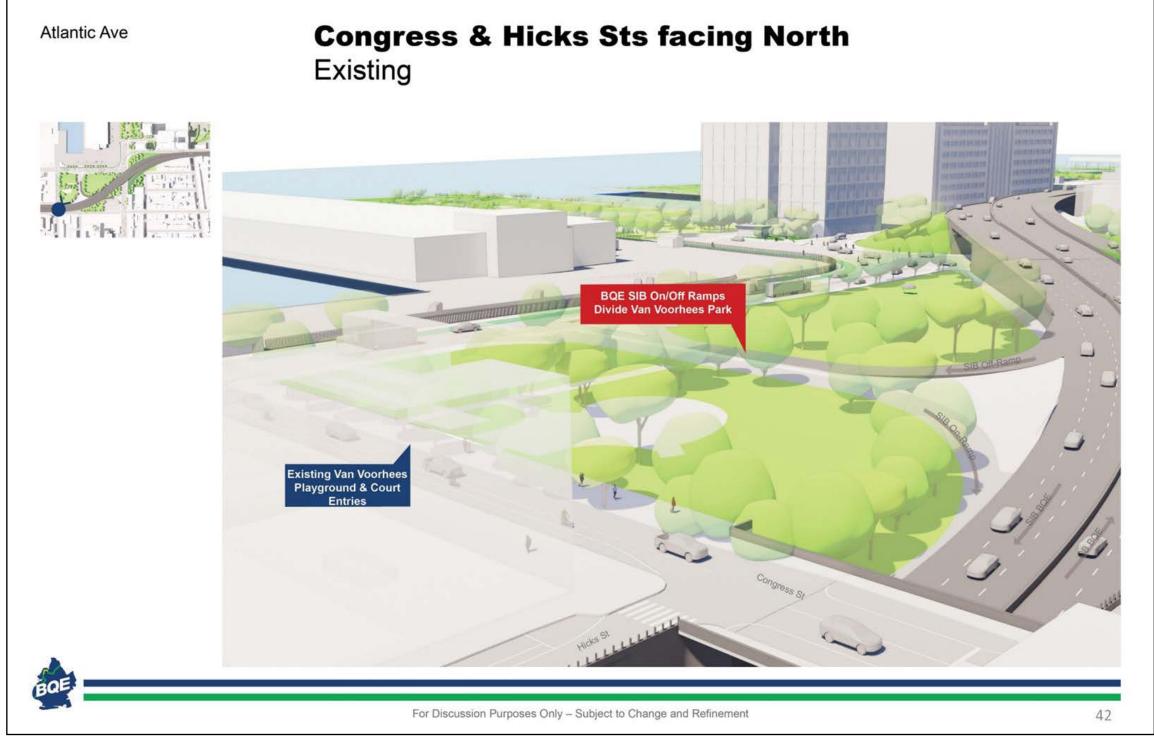
In this concept, safety and congestion would improve somewhat, with the tradeoff that the distance between the proposed off-ramp and adjacent buildings would be reduced from approximately 23' to 10'.







Congress Street today serves as an important access point from neighborhoods into the park.







In this concept, Congress St would remain similar to its existing configuration.







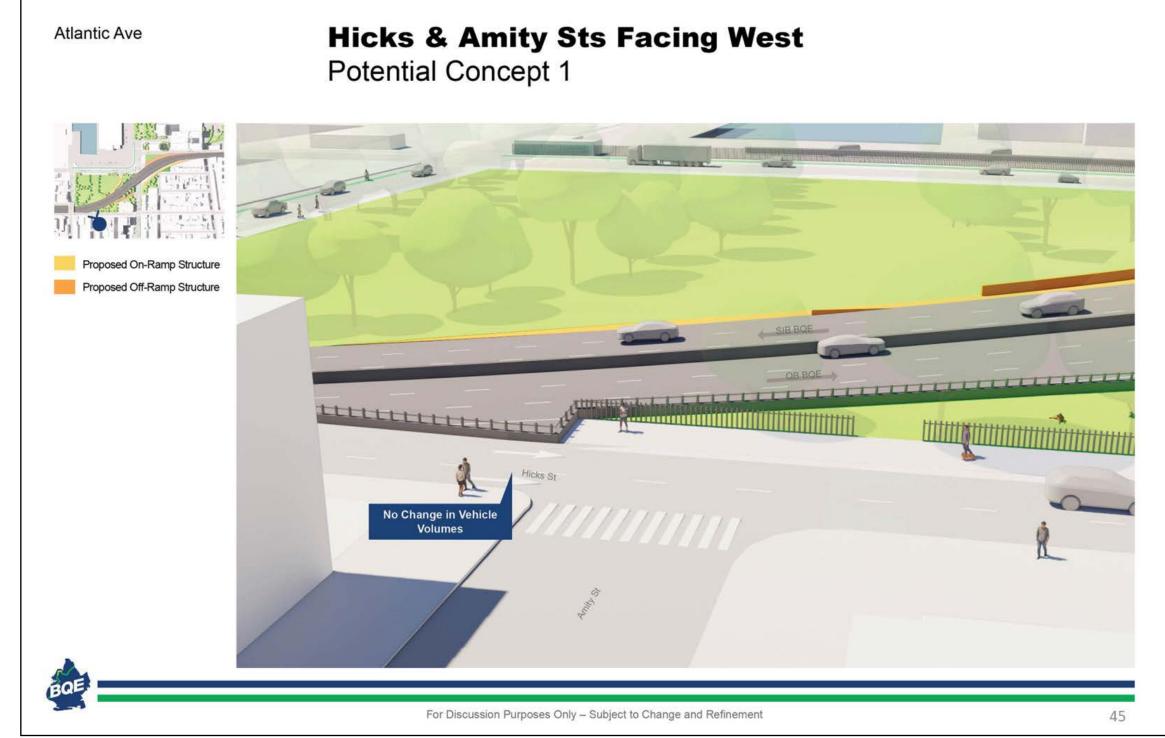
Along Hicks Street at Amity Street today, heavy traffic conflicts with an existing pedestrian route to reach the neighborhood dog park along the BQE. There is no crosswalk at this location.





There would be no significant changes to this area in this concept.

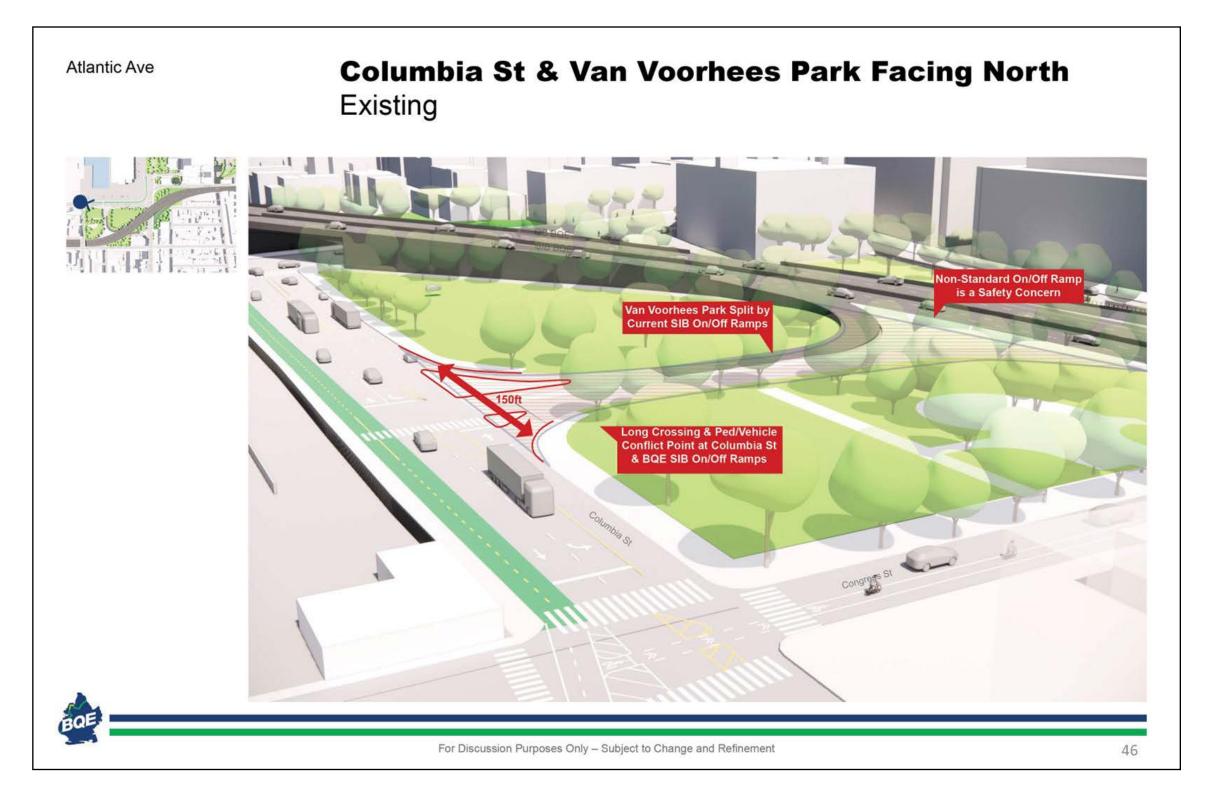
We are aware that there is a longstanding request for a crosswalk to the dog run here at Upper Van Vorhees Park. Currently, there is an open study investigating additional traffic controls at this intersection. If approved, a crosswalk could be added.







At Van Voorhees Park on Columbia Street, the park is divided today by the Staten Island-bound on- and off-ramps.

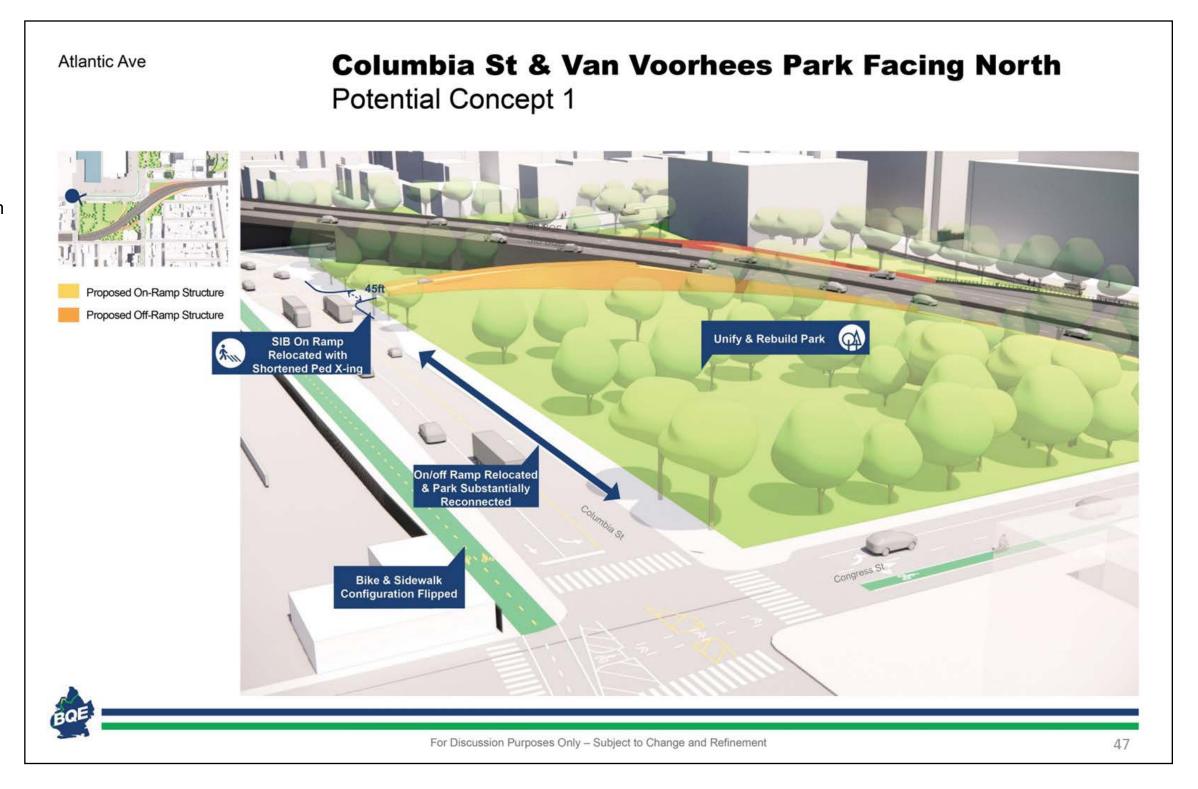






In Concept 1, the park would be unified and rebuilt, with the Staten Island-bound on-ramp relocated to the north and the offramp relocated to Atlantic Ave (as noted previously).

This would add almost 50,000 square feet of parkland - an increase of nearly an acre in. Park upgrades would be coordinated with NYC Parks and integrated into the design.







Note: in all summary slides, any italicized point is a common item shared among all three concepts.

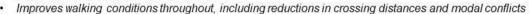
Overall, Concept 1 would make strategic improvements to Atlantic Avenue and Columbia Street improving bicyclist and pedestrian circulation, while leaving much of the existing infrastructure intact.

While this would provide improvement, it would only marginally improve some of the existing challenges, including congestion at the Atlantic Avenue on-ramp, which was mentioned as a significant concern.

DOT recognizes the problems that Concept 1 does not address and therefore looked at ways to better address them in Concepts 2 and 3.

Concept 1 Key Takeaways





- Reduces number of curb cuts & slip lanes on Atlantic Ave, Columbia St & Furman St
- Improves walking condition on Columbia St at Van Voorhees Park
- Adds additional pedestrian crossing at SIB Off Ramp on Atlantic Ave & Furman St (In Split Furman / 1B), but with fewer turning vehicle conflicts

PUBLIC SPACE

- Adam Yauch Park increases in size by 5.6K SF (26K SF total)
- · Connects Van Voorhees Park & increases park size by 51K SF (158K SF total)

CARS & TRUCKS

- · Reduces vehicle speeds on Atlantic Ave
- Improves vehicular safety & standardization of all BQE on & off Ramps
- · Does not reduce vehicle volumes on Atlantic Ave
- · Increases congestion at the intersection of the Atlantic Ave & Columbia St with the new SIB Off-Ramp
- Does not improve traffic volumes/conflicts from existing condition at the QB On-Ramp

Note: Italics indicates key takeaways shared among all concepts

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Whereas in the Terraces concept, the design idea focused on bringing the Promenade down into the Park via converging ramps, in the Lookout, the design focuses on bringing Brooklyn Bridge Park up to the Promenade.

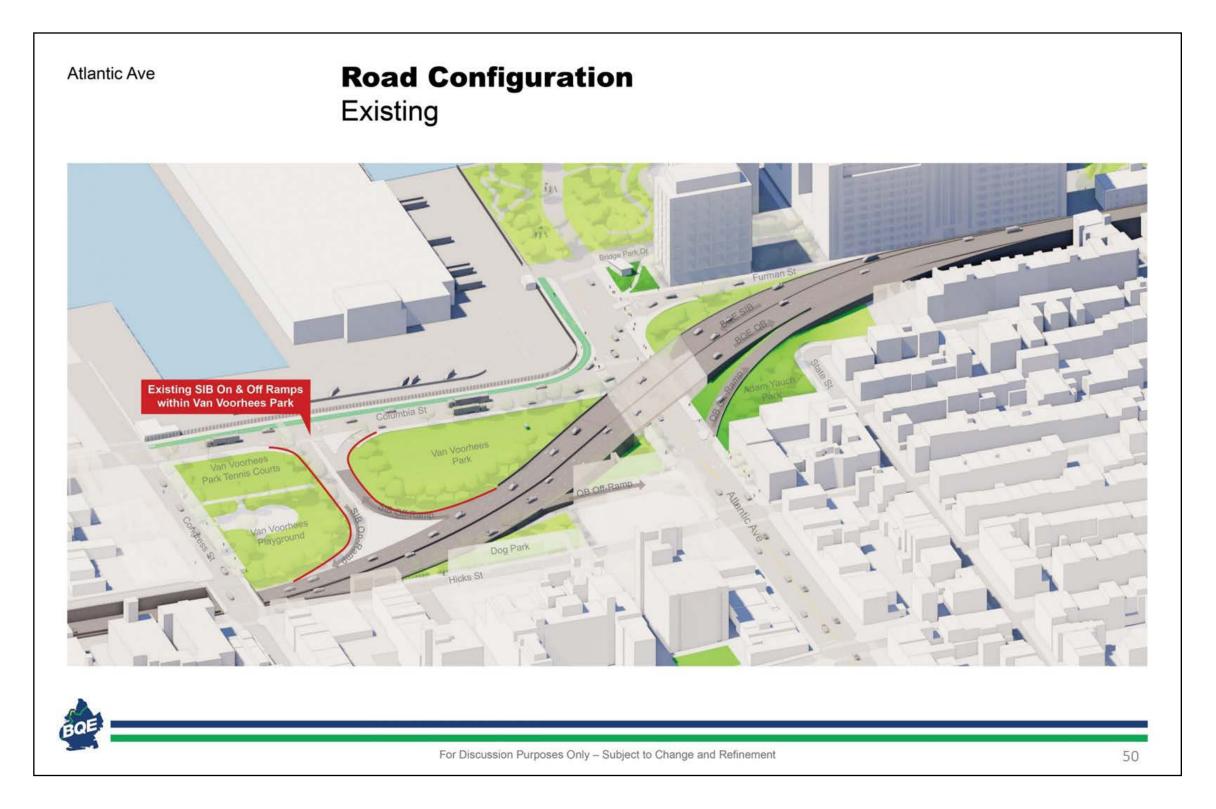
Concept 2



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In Concepts 2 and 3, there are some elements that do not change, so this presentation will focus mainly on areas that have significant differences. That said, the presentation will show the existing conditions so they can be compared with potential changes.







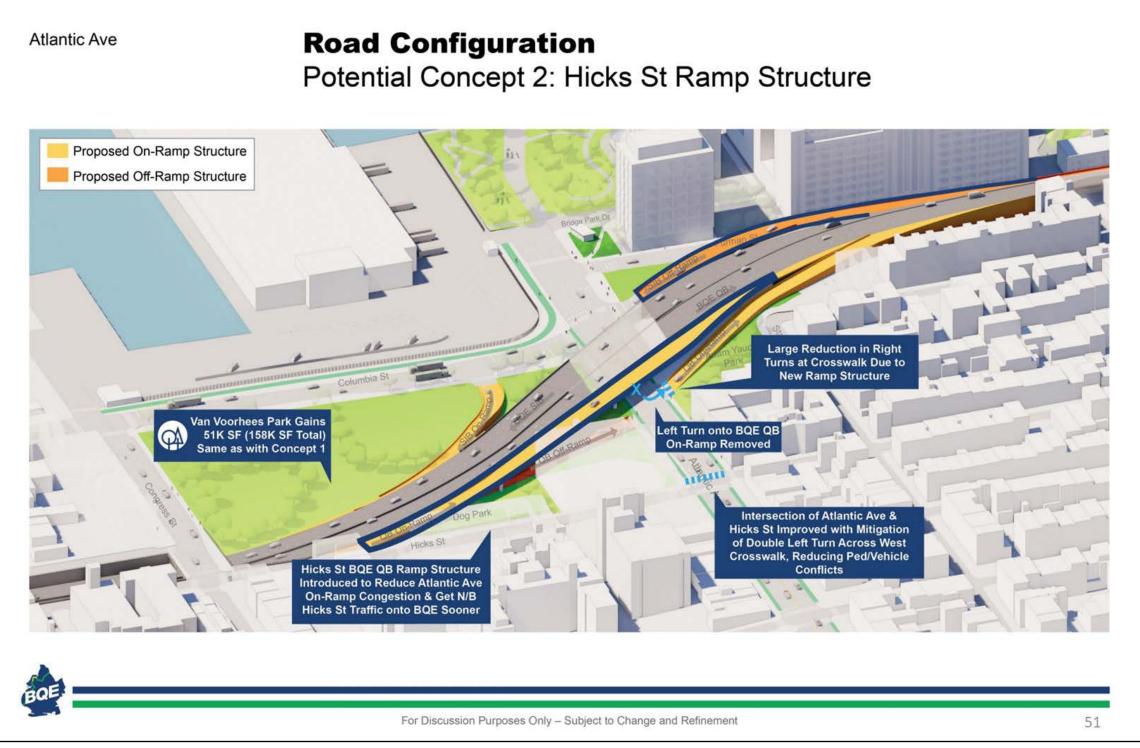
Concept 2 builds off of Concept 1. In this concept, the Staten Island-bound onand off-ramps would be in the same new locations as in Concept 1.

In Concept 2, a second Queens-bound onramp would be added at the intersection of Hicks Street and Congress Street. This ramp structure could allow traffic coming from south Brooklyn to access the Queensbound BQE sooner, decreasing conflicts with pedestrians and cyclists by incentivizing drivers not to make the double left turn onto Atlantic and then onto the Queens-bound on-ramp.

In particular, this would notably improve safety at the western crosswalk of Atlantic Ave and Hicks Street, highlighted on this slide in bright blue.

To further reduce congestion and pedestrian/ vehicle conflicts on Atlantic Ave, we could eliminate the eastbound left turn from Atlantic onto the Queens-bound on-ramp, removing yet another significant conflict.

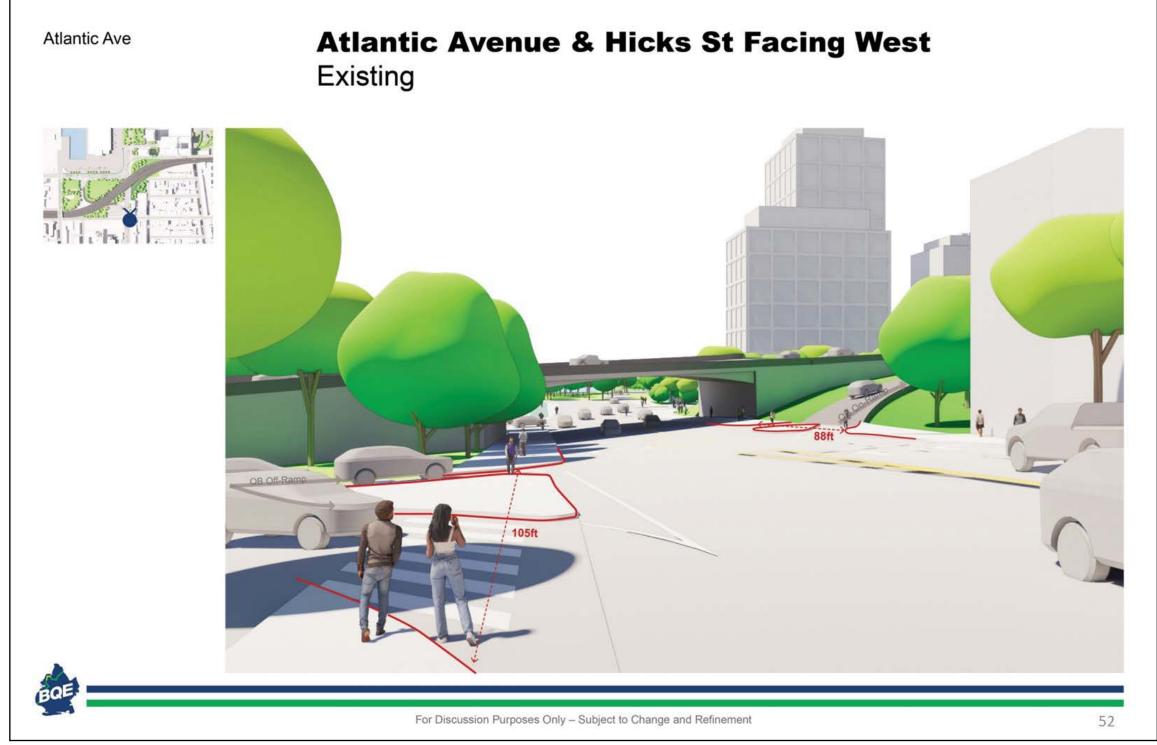
As in Concept 1, pedestrian crossing distances would also be reduced at both the Queens-bound on- and off-ramps.







This image shows Atlantic Avenue and Hicks Street as exist today.







As noted, the new ramp structure at Hicks Street could significantly reduce turns from Hicks onto Atlantic, and therefore reduce westbound traffic on Atlantic Ave.

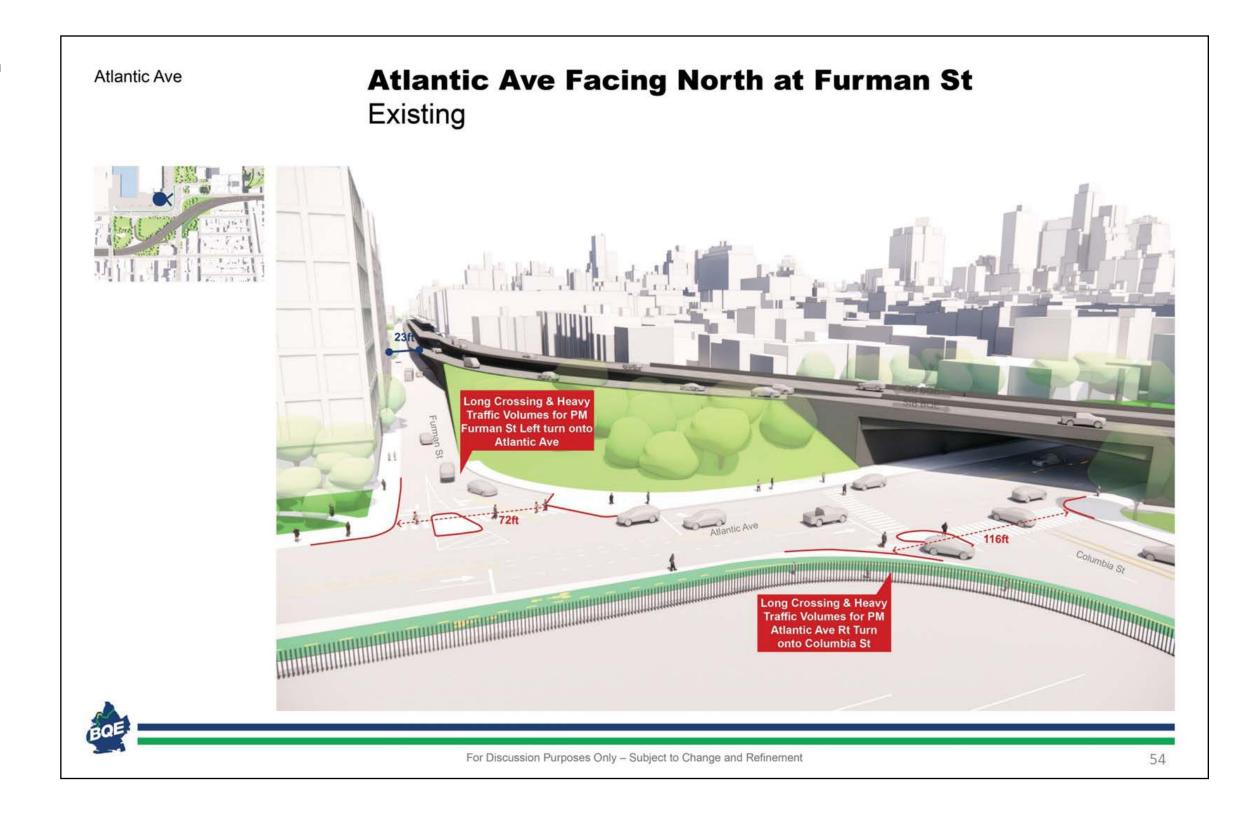
In combination with a left turn ban for eastbound traffic accessing the Queensbound on-ramp from Atlantic Avenue, this would significantly reduce the number of vehicles inundating pedestrians heading to and from the waterfront along the northern side of Atlantic Avenue.







Here is that view of the foot of Atlantic Avenue at Columbia Street and Furman Street.







In Concept 2, the configuration would be the same as in Concept 1B / Split Furman. In the interest of time, this presentation shows only one configuration, but Concept 1A is equally feasible.







This image shows Congress Street and Hicks Street facing north.

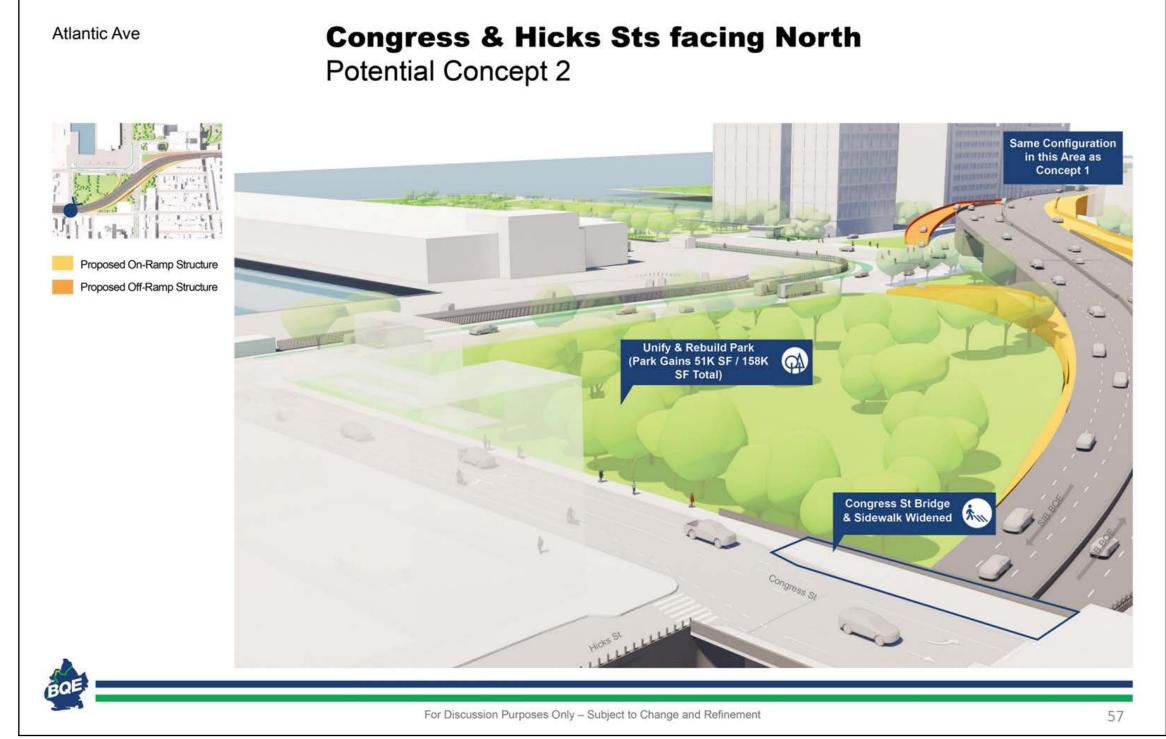






In Concept 2, the north bridge over the BQE on Congress Street would be widened to accommodate the expected new volume of vehicles that would use the street to access the Hicks Street on-ramp.

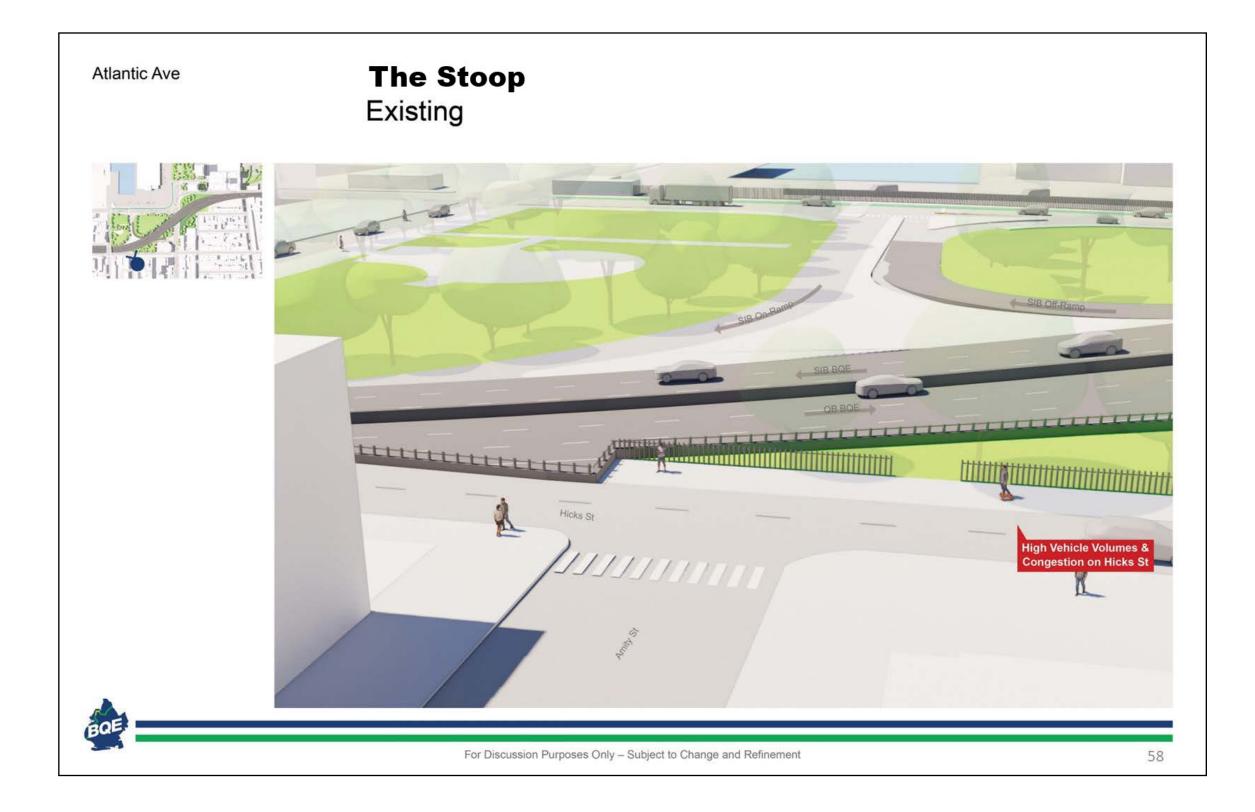
DOT would also widen the sidewalk to improve the pedestrian connection to the park.







This image shows Hicks Street at Amity Street facing west.







At Hicks Street and Amity Street, a new Staten Island-bound on-ramp structure would be introduced, resulting in a reduction of the current dog park by about 500 square feet.

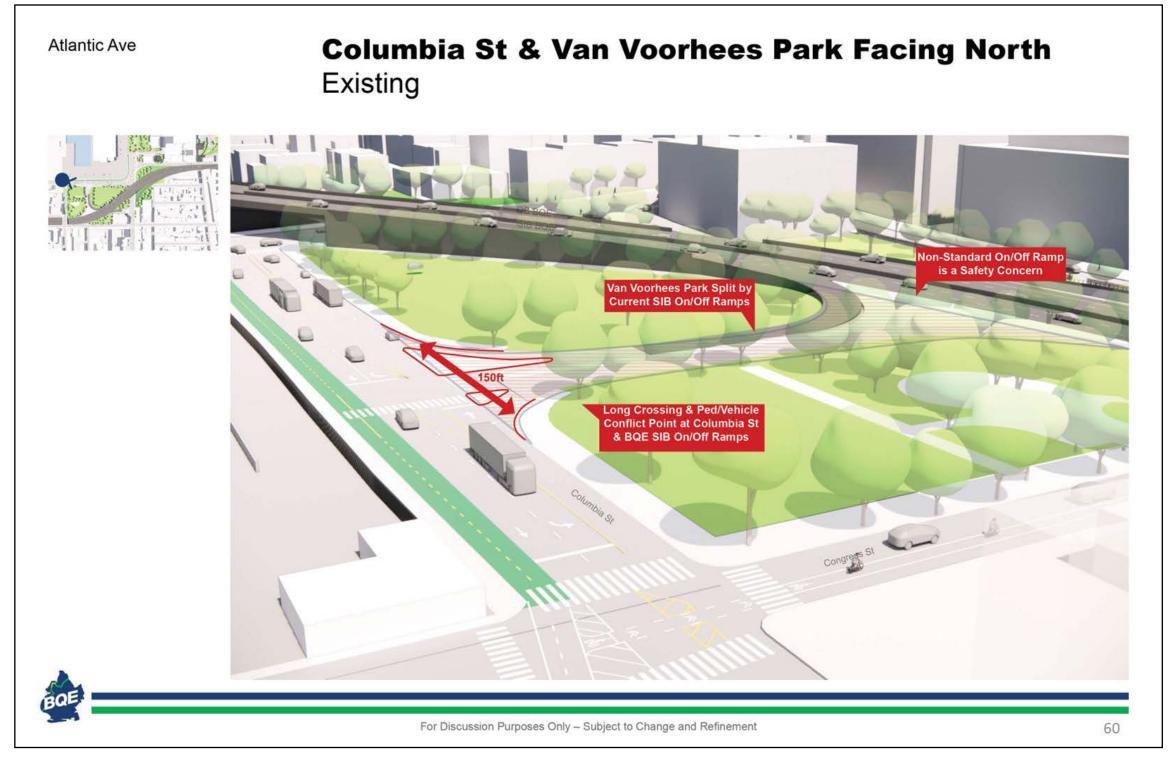
This on-ramp would help to alleviate congestion on Hicks Street, north of Amity Street.







This image shows Van Vorhees Park looking north at Columbia Street.







The configuration here would be the same as Concept 1 at Columbia Street and Van Voorhees Park.







Concept 2 would add a ramp structure at Hicks Street for Queens-bound traffic, relieving pressure on Atlantic Avenue, and would include a left-turn restriction from Atlantic Ave to the Queens-bound BQE onramp to more significantly reduce pedestrian conflicts there. Otherwise, Concept 2 is similar to Concept 1.

Concept 2 Key Takeaways **BIKES & PEDS** Adds new bike connections on Atlantic Ave Improves walking conditions throughout, including reductions in crossing distances and modal conflicts Reduces number of curb cuts & slip lanes on Atlantic Ave, Columbia St & Furman St Improves walking condition on Columbia Stat Van Voorhees Park Widens sidewalk on north side of Congress St. bridge Substantial reduction in traffic on Atlantic Ave accessing QB ramp, allowing increased pedestrian crossing time with fewer conflicts . QB Flyover increases walking distance below BQE Bridge over Atlantic Ave SIB off-ramp at Atlantic Ave & Furman St does not reduce number of ped crossings on north side of Atlantic Ave PUBLIC SPACE Adam Yauch Park increases in size by 5.6K SF (26K SF total) Connects Van Voorhees Park & increases park size by 51K SF (158K SF total) Hicks St Dog Run reduced in size by proposed QB on-ramp by 550 SF CARS & TRUCKS · Reduces Vehicle speeds on Atlantic Ave · Improves vehicular safety and standardization of all BQE on and off ramps · SIB Off-Ramp at Atlantic Ave - Increases congestion at Atlantic Ave & Columbia St intersection (Same as Option 1) QB Hicks St On-Ramp – Reduces traffic from existing at Atlantic Ave including reducing congestion at Hicks St & Atlantic Ave. May incentivize shortcutting BQE on-ramp at Hamilton Ave via Hicks St Note: Italics indicates key takeaways shared among all concepts For Discussion Purposes Only - Subject to Change and Refinement







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Concept 3 would represent the most notable change from the current configuration, with the addition of ramp structures in both directions with the goal of minimizing traffic congestion and conflicts between users on Atlantic Avenue.

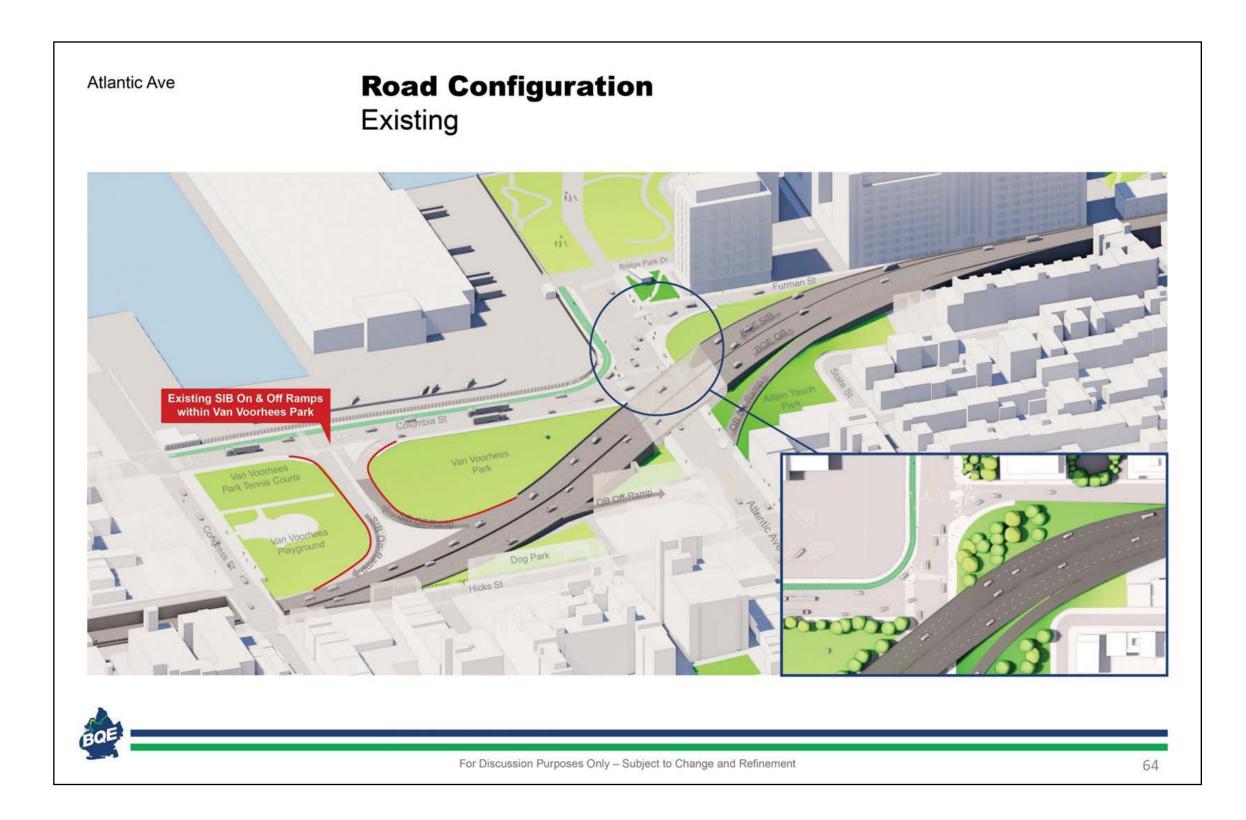
Concept 3



For Discussion Purposes Only - Subject to Change and Refinement



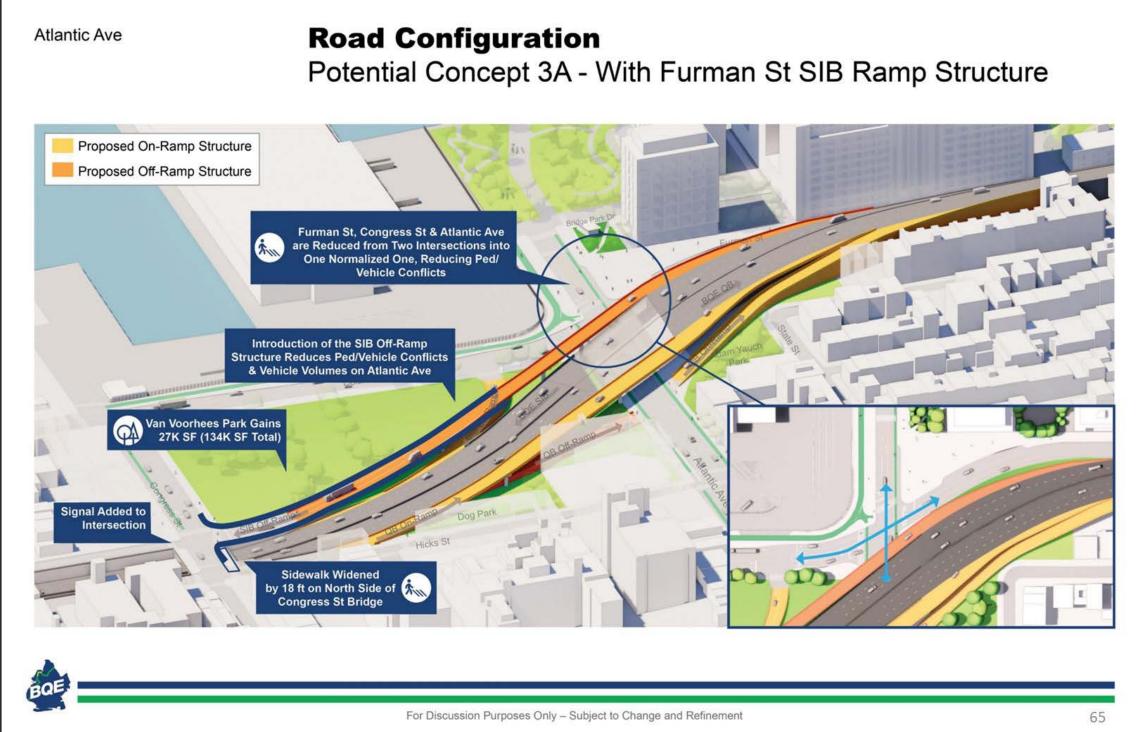
Again, the configuration of this area as it looks today.







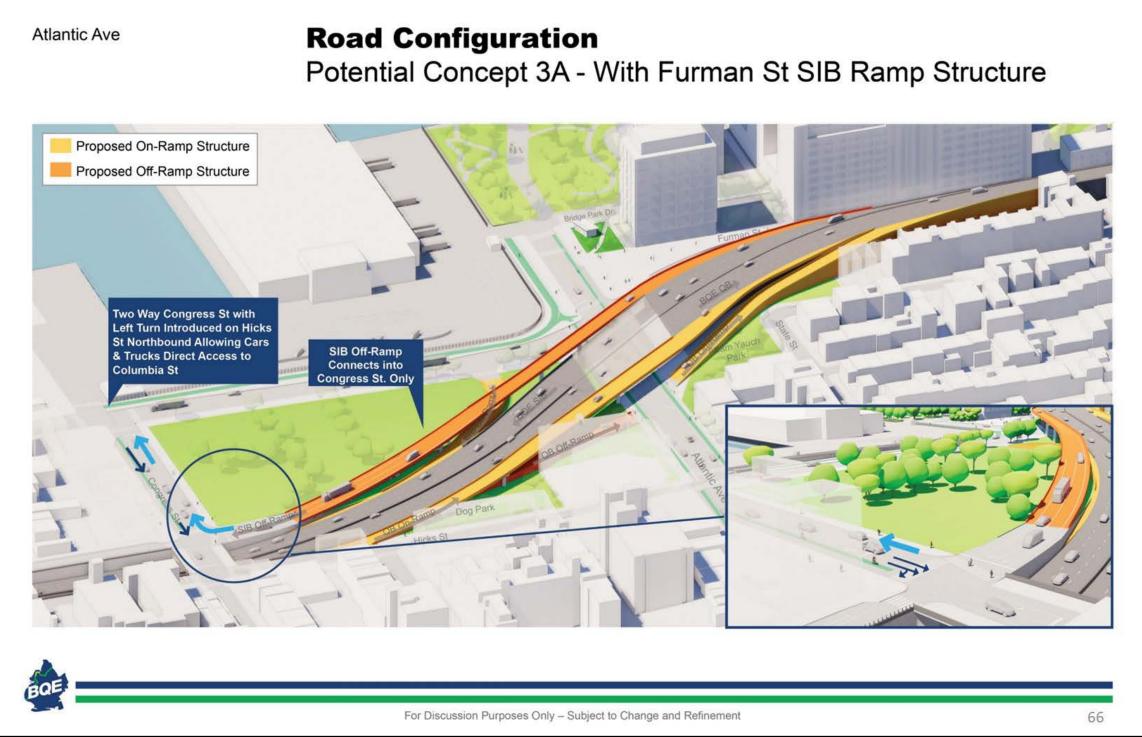
In Concept 3, ramp structures would be introduced in both directions, with a Staten Island-bound off-ramp exiting onto Congress Street and Hicks Street, and with an enlarged space at the foot of Furman Street, reclaiming 20,000 square feet for pedestrians.







Concept 3A would allow Congress Street to operate as a two-way street, enabling trucks and cars to turn right onto Congress towards Columbia Street if they are headed towards the waterfront. This would also better mitigate congestion on Hicks Street.



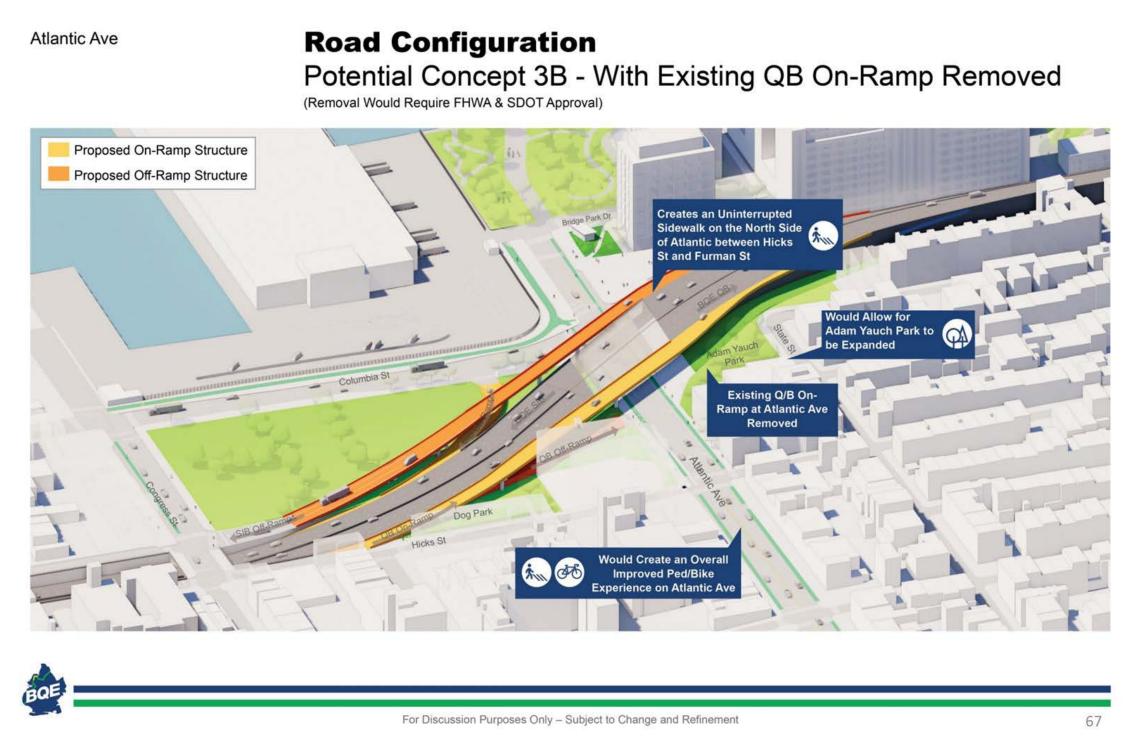




Some stakeholders asked about the possibility of removing the Queens-bound on-ramp. Concept 3B explores that closure.

Closing the on-ramp would greatly improve the overall experience on Atlantic Avenue for pedestrians and cyclists, reducing pedestrian crossings on the north side of Atlantic and possibly allowing for the expansion of Adam Yauch Park.

Though it is possible to close this on-ramp, this configuration would have significant traffic implications.



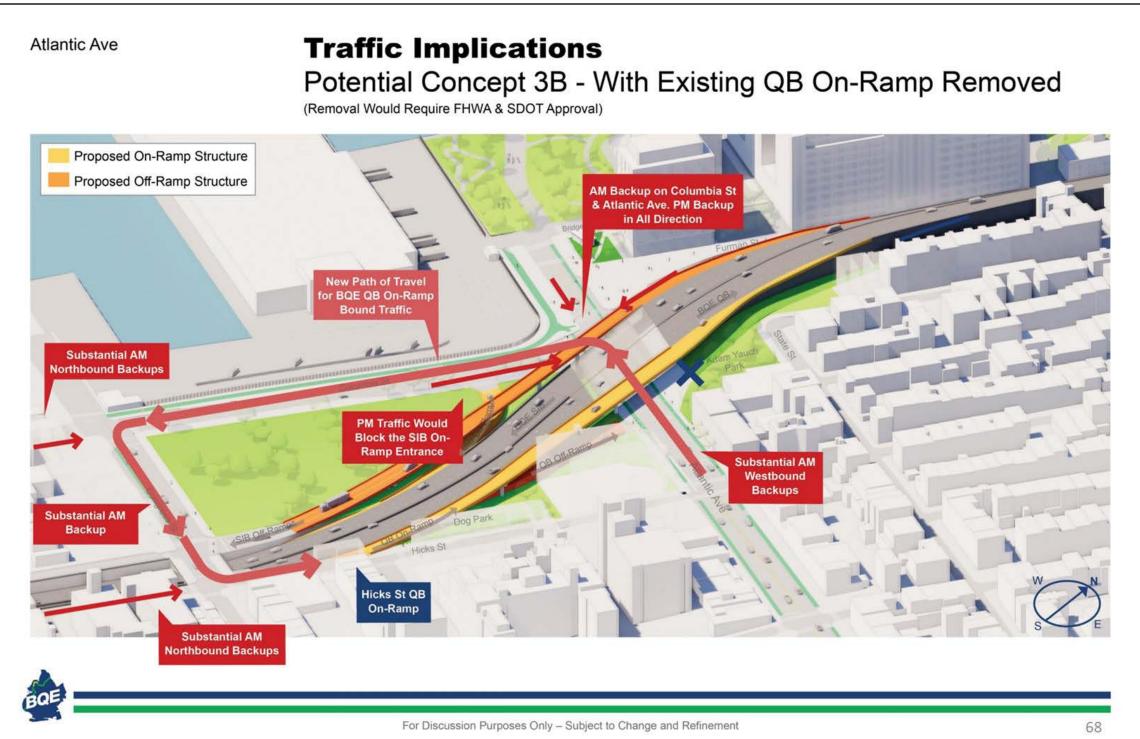




Removing the existing Queens-bound onramp at Atlantic would cause neighborhood street traffic backups throughout the area. This would mainly be caused by BQE Queens-bound traffic on Atlantic Avenue now needing to access the highway via the new Hicks Street on-ramp.

Instead of accessing the BQE at Atlantic Avenue directly, our traffic modeling indicates that that traffic is expected to seek the on-ramp at Hicks Street. This means westbound traffic on Atlantic Avenue would turn south onto Columbia Street, then east on Congress Street, and then onto the BQE entrance at Hicks Street.

In the morning this would cause long northbound backups at the corners of Columbia Street at Congress Street and at Hicks Street at Congress Street. There would be substantial westbound backup at Atlantic Avenue and additional east-bound traffic on Congress Street.



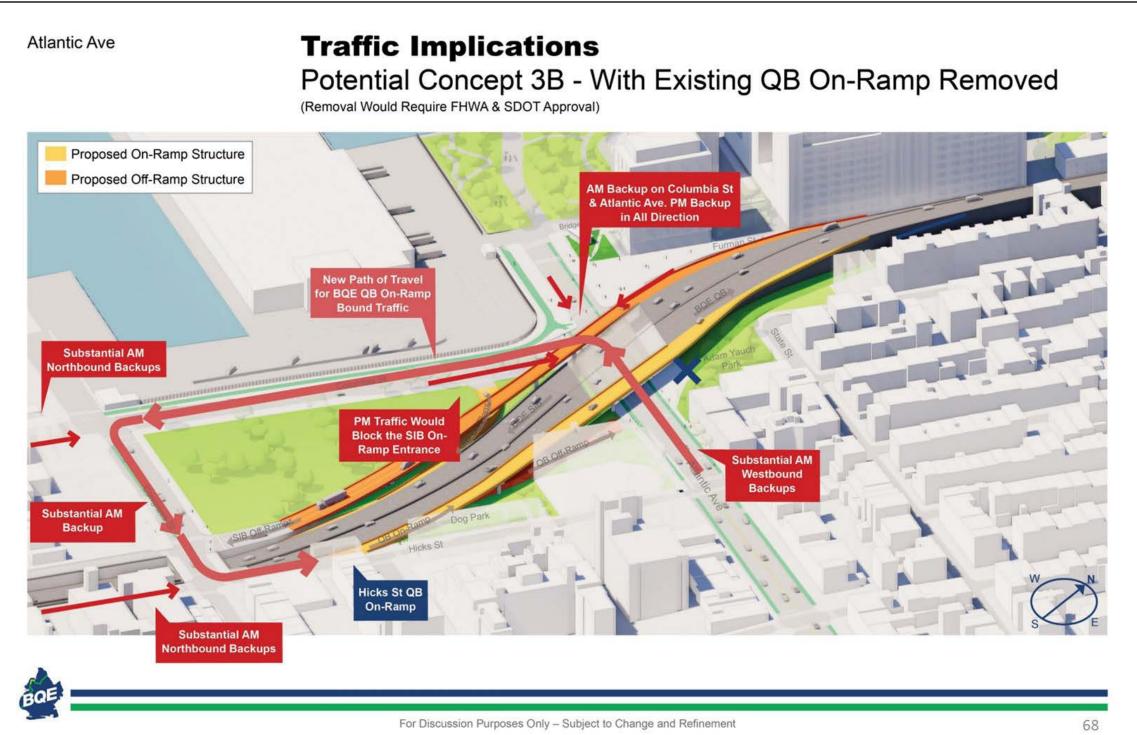




During evening rush hour, the intersection of Atlantic Avenue and Columbia Street would have backups in all directions, also blocking access to the proposed Staten Islandbound on-ramp on the northern side of Van Voorhees Park.

Note: DOT also studied closing the Queensbound on-ramp for Concept 2, which would result in similar impacts and operational issues for that concept.

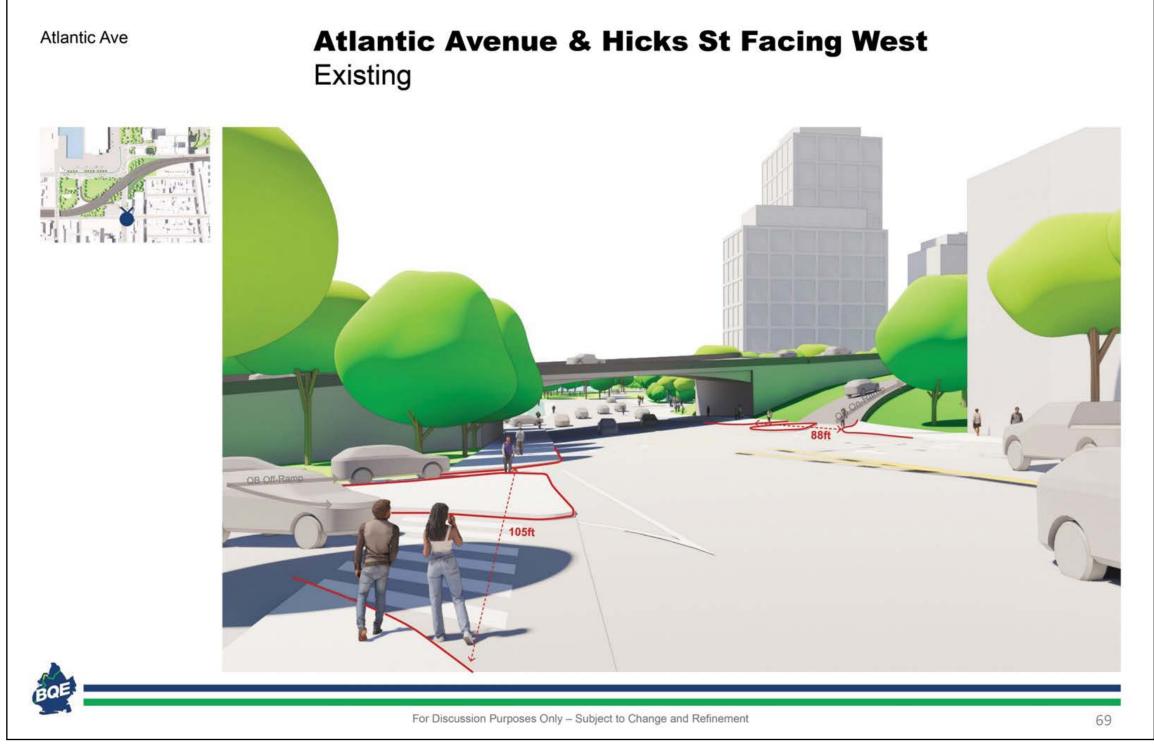
DOT is not making recommendation with this presentation, but rather soliciting feedback from the public to ask how DOT should consider these tradeoffs.







This image shows Atlantic Avenue looking west from Hicks Street today.







In Concept 3A, the configuration would be largely the same as in Concept 2, with the additional connection for the Queens-bound on-ramp.







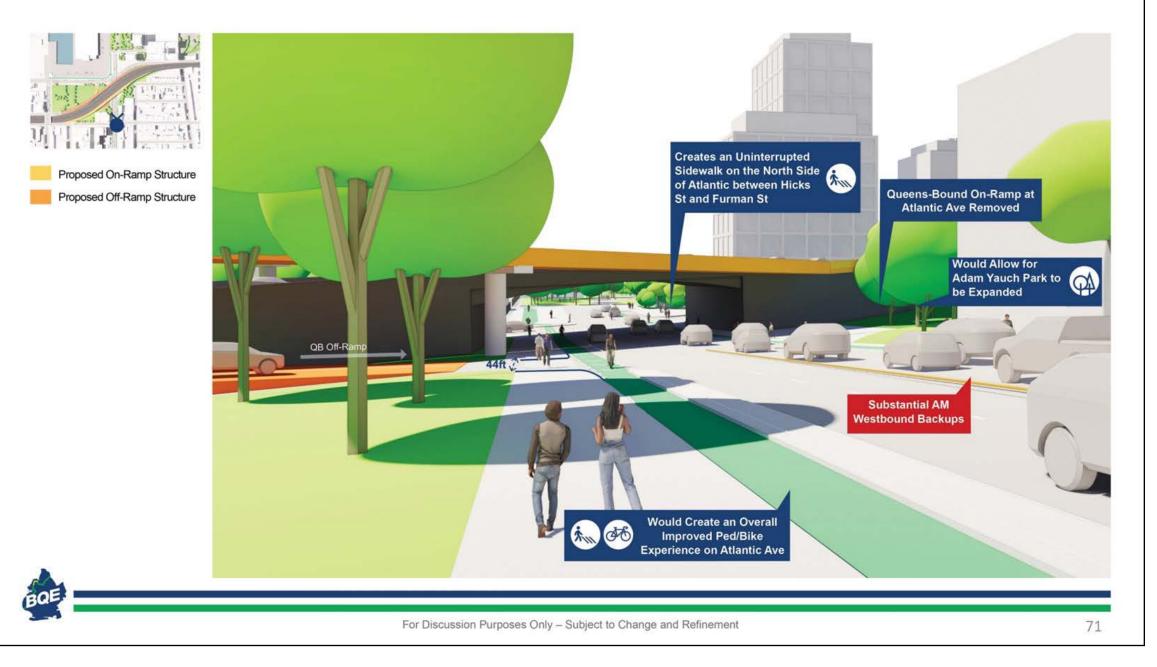
In Concept 3B, the Queens-bound on-ramp at Atlantic Avenue would be removed. This would create an uninterrupted pedestrian connection on the north side of Atlantic Avenue.

While this would be a notable safety improvement for pedestrians and bicyclists, the closure of this on-ramp would likely have cascading effects for traffic in the neighborhood. On this portion of Atlantic Avenue, there would be significant westbound backups.

Atlantic Ave

Atlantic Avenue & Hicks St Facing West

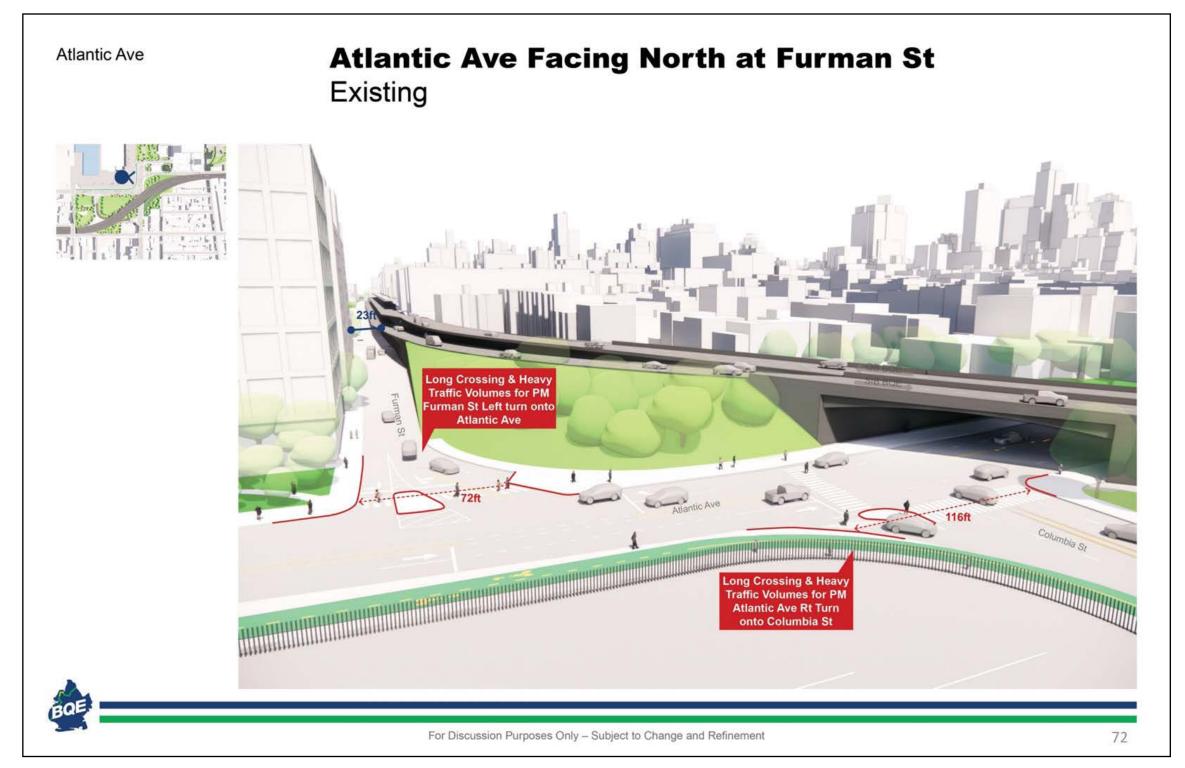
Potential Concept 3B - With Existing QB On-Ramp Removed







This image shows Atlantic Ave looking west from Hicks Street today.





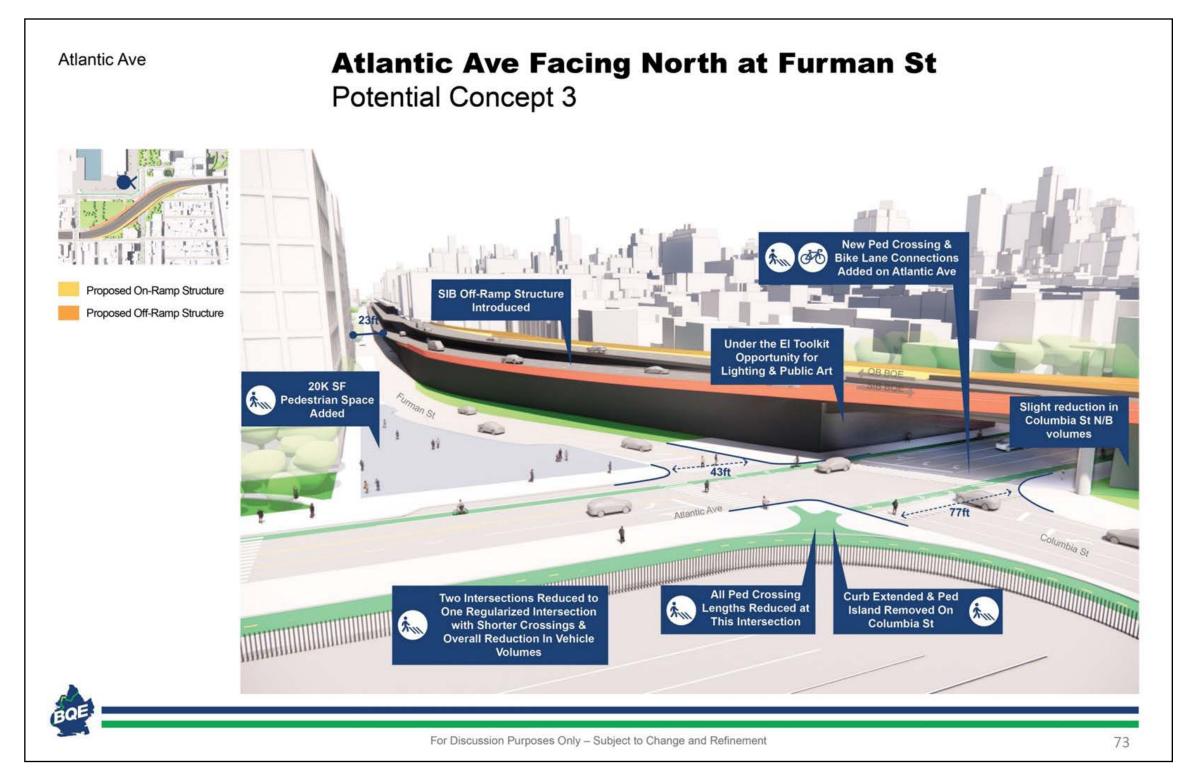


In Concept 3, the reconfiguration of the Staten-Island bound off-ramp would transform the two split intersections into one unified, standard four-way intersection, simplifying vehicle movements and significantly reducing pedestrian crossing conflicts and distances.

This configuration would also introduce an enlarged pedestrian space at the foot of Furman Street and new pedestrian crossings across Atlantic Avenue to Furman Street.

The structure would be integrated with the proposed improvements to the triple cantilever and tie into the highway without further impacting adjacent residential buildings.

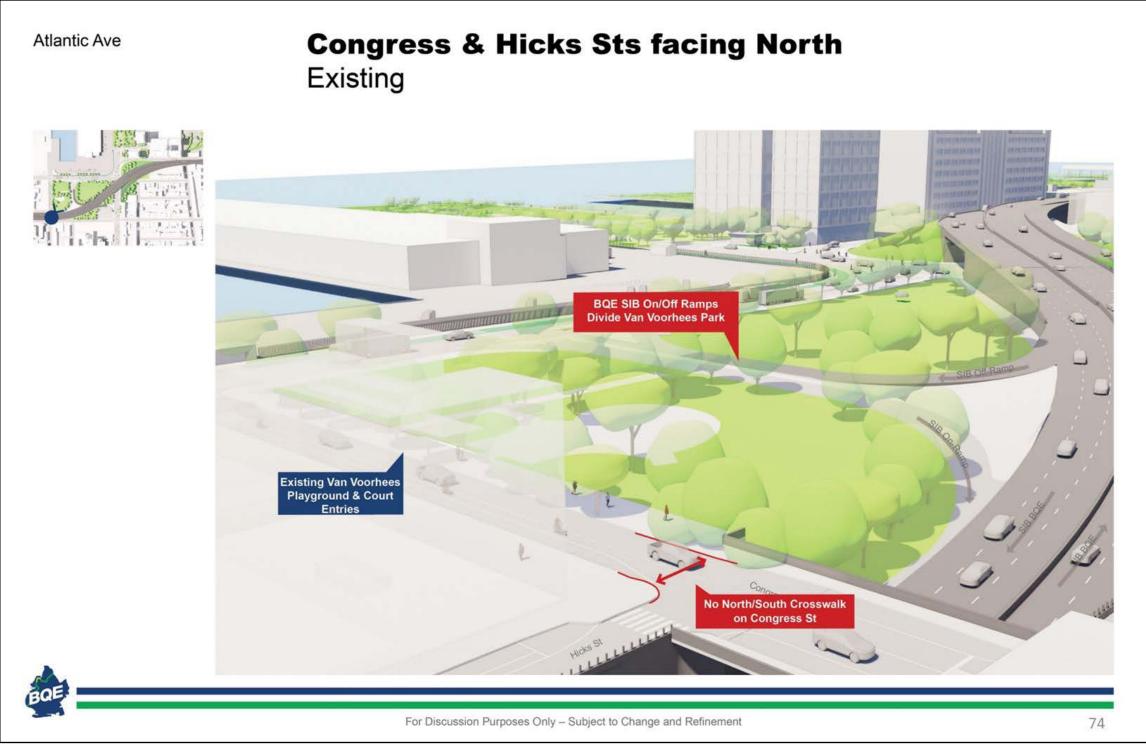
Once again, NYC DOT can use its "Under the El" toolkit to add new lighting, public art, and other improvements to brighten the space under this infrastructure.







Congress and Hicks Street looking north.

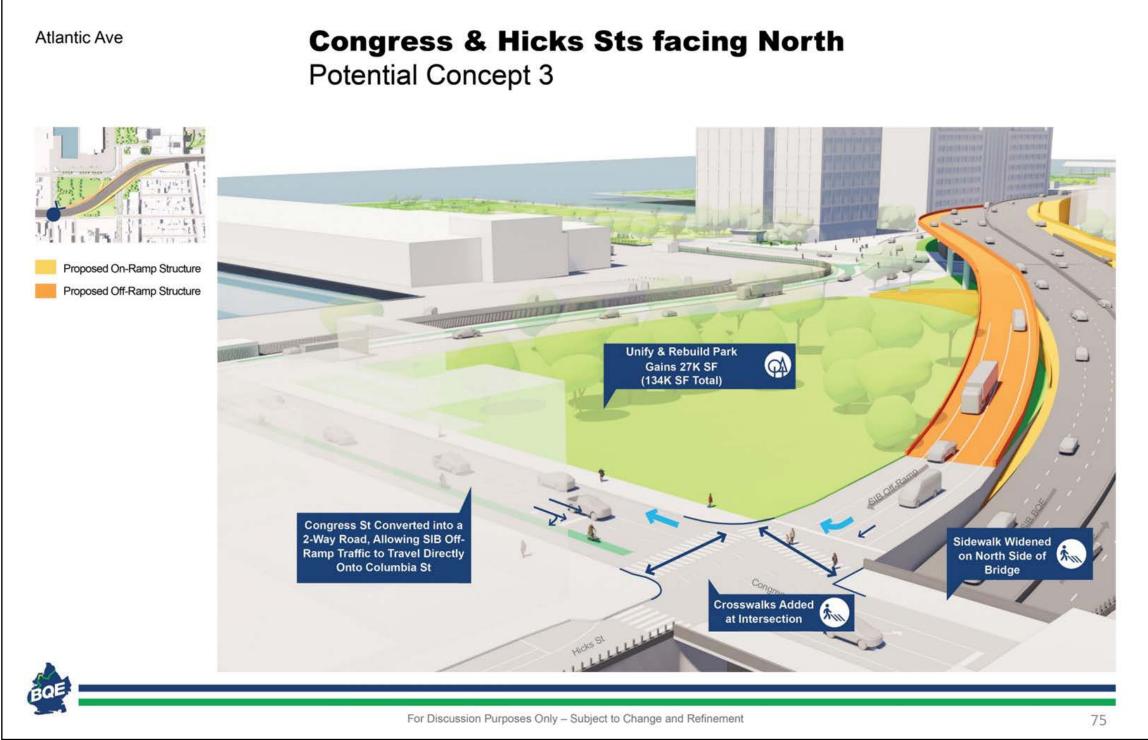






In Concept 3, the Staten Island-bound offramp structure would end at the intersection of Hicks and Congress Streets. Congress Street would be converted into a two-way street, enabling more cars and trucks to head towards Columbia Street, a mapped local freight route.

As in Concept 2, the north bridge over the BQE on Congress Street would be widened to accommodate the expected new volume of vehicles that would use the street to access the Hicks Street on-ramp. And once again, we would also widen the sidewalk to improve pedestrian safety.







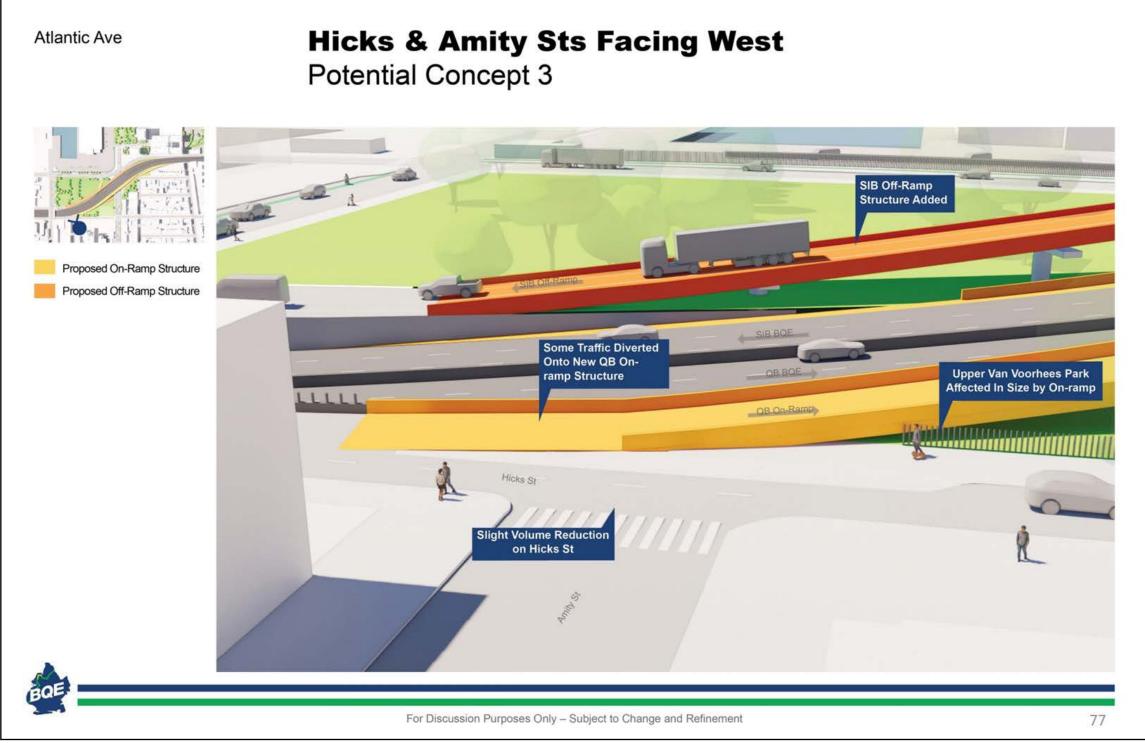
This image shows Hicks Street and Amity Street facing west.







At Amity Street, the configuration would be the same as in Concept 2. The introduction of the new Congress St SIB off-ramp might impact some views towards the waterfront.





Returning to Columbia St at Van Vorhees Park Facing North

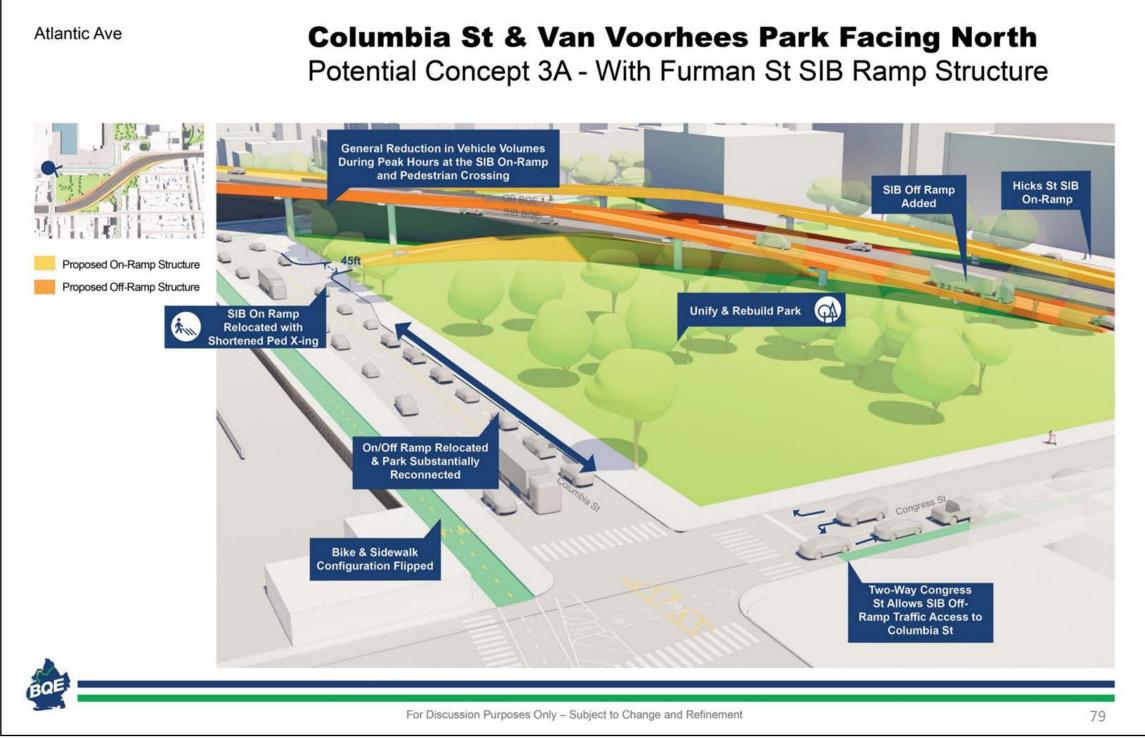






At Van Voorhees Park, the relocation of the SIB off-ramp would require using more of the current park space than would be needed in Concept 1 or 2. However, we would still be able to redesign and consolidate parkland, adding approximately 25,000 square feet of new space.

Congress Street would become a two-way street while maintaining the existing bike lane.





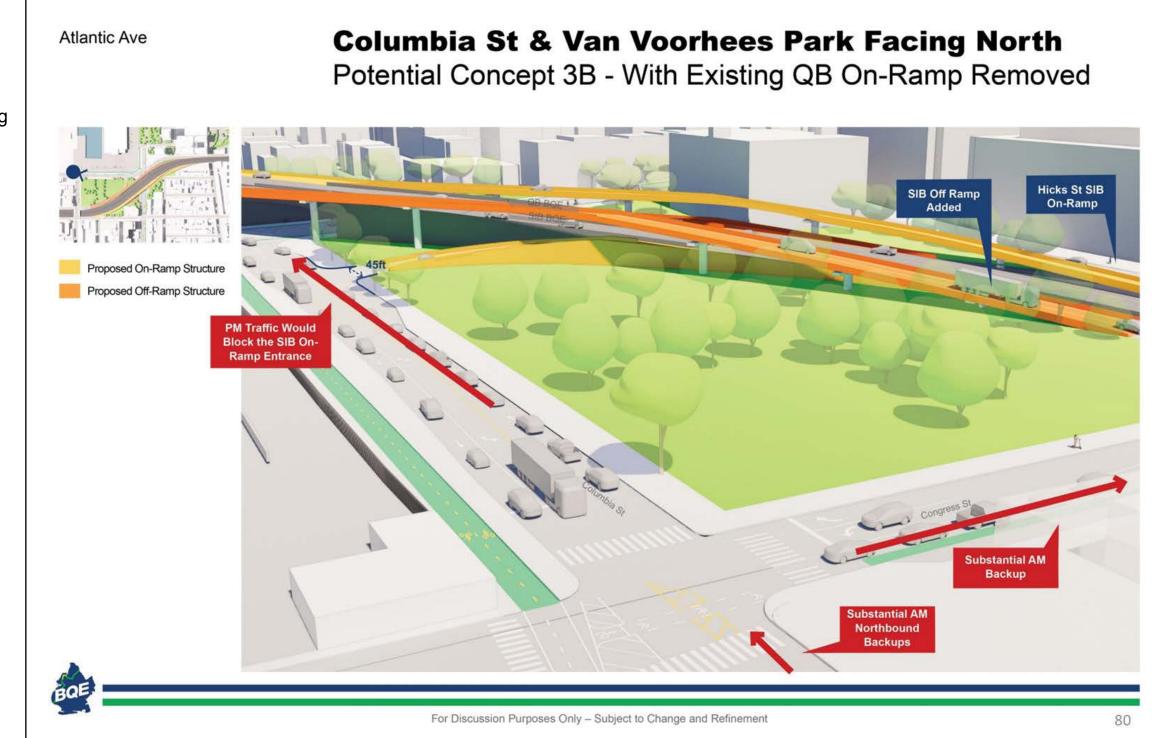


As noted previously, removal of the existing Queens-bound on-ramp would have significant implications for the area.

On Columbia Street, there would be long backups for northbound traffic in the morning and evening, blocking the proposed Staten Island-bound on-ramp.

Southbound traffic would also increase with more vehicles coming from Atlantic Ave to travel onto Columbia St to access the Hicks Street Queens-bound on-ramp.

This removal could also be applied to Concept 2.







Overall, Concept 3A would do the most to shift traffic off Atlantic Avenue and to reduce pedestrian-vehicle conflicts and congestion at the foot of Brooklyn Bridge Park.

This concept would streamline traffic significantly, but with additional infrastructure and related visual impacts due to the ramp structures required to improve traffic operations.

However, as noted, Concept 3B, which considers the removal of Queens-bound onramp at Atlantic Avenue, would not reduce congestion or streamline traffic in this area.

Concept 3 Key Takeaways



BIKES & PEDS

- Adds new bike connections on Atlantic Ave
- Improves walking conditions throughout, including reductions in crossing distances and modal conflicts
- Reduces number of curb cuts & slip lanes on Atlantic Ave, Columbia St & Furman St
- Improves walking condition on Columbia Stat Van Voorhees Park
- Widens sidewalk on north side of Congress St. bridge
- Atlantic Ave, Columbia St & Furman St intersections combined from two into one with significant pedestrian safety improvements
- QB & SIB ramp structures increase walking distance below BQE Bridge over Atlantic Ave
- · Relocated SIB off-ramp adds truck & car traffic to Congress St

PUBLIC SPACE

- Adam Yauch Park increases in size by 5.6K SF (26K SF total)
- · 20K SF of pedestrian space created at Furman St
- · Van Voorhees Park connected & increased by 27K SF (134K total)
- Hicks St Dog Run reduced in size by QB on-ramp 550 SF

Note: Italics indicates key takeaways shared among all concepts

CARS & TRUCKS

Atlantic Ave

Congress St.

traffic to Congress St

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· Reduces vehicle speeds on Atlantic Ave

· Improves vehicular safety and standardization of all BQE on and off ramps · Concept 3A - With Hicks St & Atlantic Ave Queens-Bound On-Ramps QB On-Ramp – Improves traffic conditions from existing at

· SIB Off-Ramp - Improves traffic conditions from existing at Atlantic Ave but introduces additional volume and west-bound

· Concept 3B - With Atlantic Ave Queens-Bound On-Ramp Removed Significant Impact to Traffic in Many Locations including increasing Westbound Traffic on Atlantic, Causing the Blockage of the Columbia St & Atlantic Ave intersection, Blockage of the Staten Island Bound On-Ramp & Increase Traffic on Hicks St and



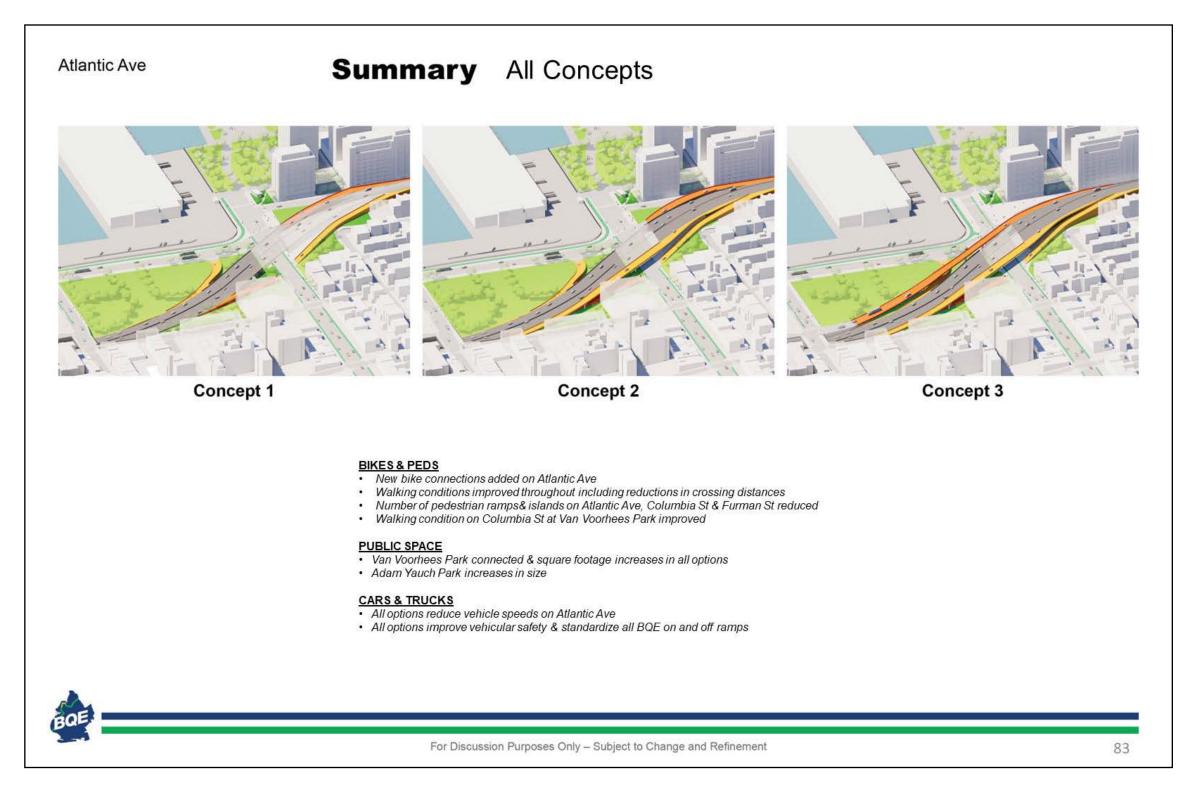
Summary



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In summary, these concepts enhance safety for all users - especially cyclists and pedestrians - improve connections to parks and the waterfront, and expand or improve existing public spaces.







Due to the complex nature of this interchange and the space constraints, there is no perfect answer to accommodate all uses. Each concept has benefits as well as trade-offs:

Concept 1:

- Improves walking conditions, especially on Atlantic Avenue, and reconnects Van Voorhees Park.
- Does not reduce traffic volumes on Atlantic Avenue and is likely to increase congestion on Atlantic and to reduce vehicle speeds, including for buses, and potentially create a more challenging pedestrian experience.

Concept 2:

- Improves walking conditions and reduces crossing distances throughout, especially on Atlantic Avenue, and reduces congestion on Atlantic Avenue.
- Improves walking conditions on Columbia Street to connect to Van Voorhees Park, increasing the park by approximately 50,000 square feet.
- The addition of a Queens-bound on-ramp helps to alleviate chronic congestion on Atlantic Avenue, including from left turns from Hicks Street. However, this impacts the existing dog park, reducing the space by approximately 500 square feet.

Atlantic Ave

Summary





BIKES & PEDS

· Adds shorter, but additional pedestrian crossing at SIB offramp on Atlantic Ave & Furman St (In Split Furman / Concept 1B)

PUBLIC SPACE

 Connects Van Voorhees Park & increases park size by 51K SF (158K SF total)

CARS & TRUCKS

- · Does not reduce vehicle volumes on Atlantic Ave
- SIB Off-Ramp Increases congestion at Atlantic/Columbia intersection
- · QB On-Ramp Does not improve traffic volumes from existing condition



Concept 2

BIKES & PEDS

- QB On-Ramp structure at Hicks St increases walking distance below BQE Bridge over Atlantic Ave
- SIB Off-Ramp at Atlantic Ave & Furman St does not reduce number of ped crossings on North Side of Atlantic Ave (Same as concept 1B)

PUBLIC SPACE

- · Connects Van Voorhees Park & increases park size by 51K SF (158K SF total)
- · Hicks St Dog Run reduced in Size by QB On Ramp at Hicks St by 550 SF

CARS & TRUCKS

- QB On-Ramp Improves traffic conditions from existing at Atlantic Ave including removing left turn volumes at Hicks St & Atlantic Ave intersection
- SIB Off Ramp at Atlantic Increases congestion at Atlantic/Columbia intersection
- QB On-Ramp at Hicks St Reduces congestion on Atlantic, but incentivizes shortcutting BQE On-Ramp at Hamilton Ave via Hicks St.

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Concept 3

BIKES & PEDS

- QB & SIB Ramp structures increases walking distance below BQE Bridge at Atlantic Ave
- · SIB Off-Ramp introduces truck & car traffic onto Congress St.
- · Crossing added at intersection of Congress & Hicks Sts.

PUBLIC SPACE

- Adds 20K SF of new pedestrian space at Furman St
- · Van Voorhees Park increases in size by 27K SF (134K total)
- · Hicks St Dog Run reduced in Size by QB On Ramp at Hicks St by 550 SF

CARS & TRUCKS

- QB On Ramp Improves traffic conditions from existing at Atlantic
- SIB Off Ramp Improves traffic conditions from existing at Atlantic Ave but introduces additional traffic volumes to Congress St

Summary

Concept 3

- This concept also improves walking conditions and reduces crossing distances throughout, especially on Atlantic Avenue. There would be noticeable reductions in congestion and pedestrian-vehicle conflicts on Atlantic Avenue.
- · This concept shifts the Staten Islandbound off-ramp onto Congress Street and Hicks Street, transforming Congress Street into a two-way street and shifting a limited amount of traffic exiting the BQE onto this street.
- However, this concept does improve walking conditions on Columbia Street to connect to Van Voorhees Park, increasing the park by approximately 25,000 square feet. The concept also adds a large pedestrian space to the intersection of Furman Street and Atlantic Avenue.

Concept 3B

• And in Concept 3B, not shown, though there would be many positive benefits to removing the existing Queens-bound onramp at Atlantic Avenue, there would be significant traffic impacts across the area as a result.

Atlantic Ave





BIKES & PEDS

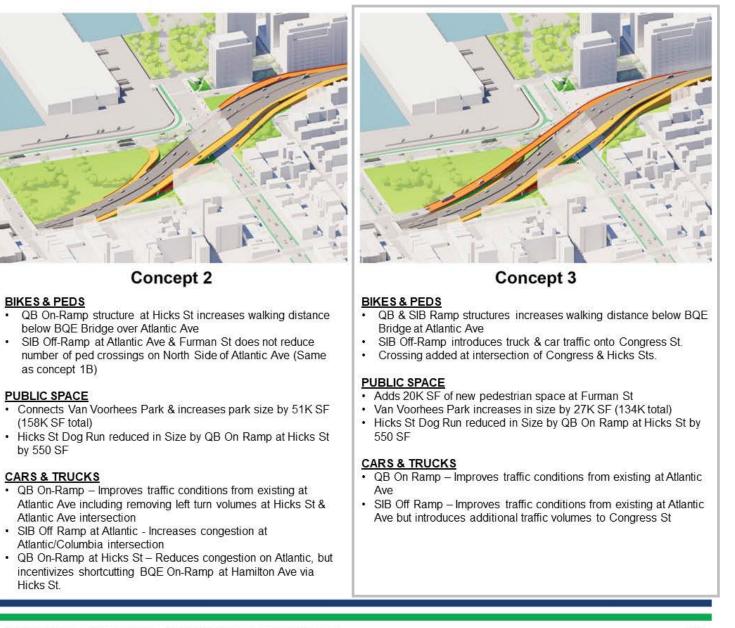
 Adds shorter, but additional pedestrian crossing at SIB offramp on Atlantic Ave & Furman St (In Split Furman / Concept 1B)

PUBLIC SPACE

Connects Van Voorhees Park & increases park size by 51K SF (158K SF total)

CARS & TRUCKS

- · Does not reduce vehicle volumes on Atlantic Ave
- · SIB Off-Ramp Increases congestion at Atlantic/Columbia intersection
- QB On-Ramp Does not improve traffic volumes from existing condition



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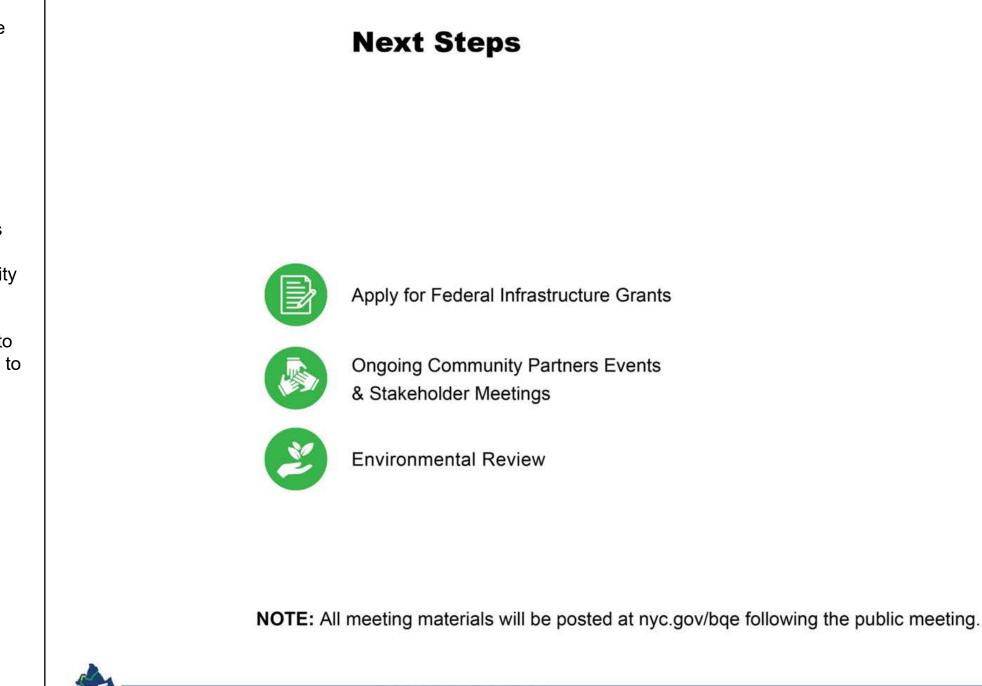


There will be additional opportunities to engage on the topic of the Atlantic Avenue interchange through DOT's ongoing events and stakeholder meetings, as well as community partner outreach. This will include an in-person meeting on these concepts in summer 2023 (date to be announced).

The BQE Central environmental review process will begin in spring 2024, and this will be an additional two-year process to listen to and formally respond to community feedback.

In the meantime, NYC DOT will continue to coordinate with state and federal partners to plan for the future of BQE Central.

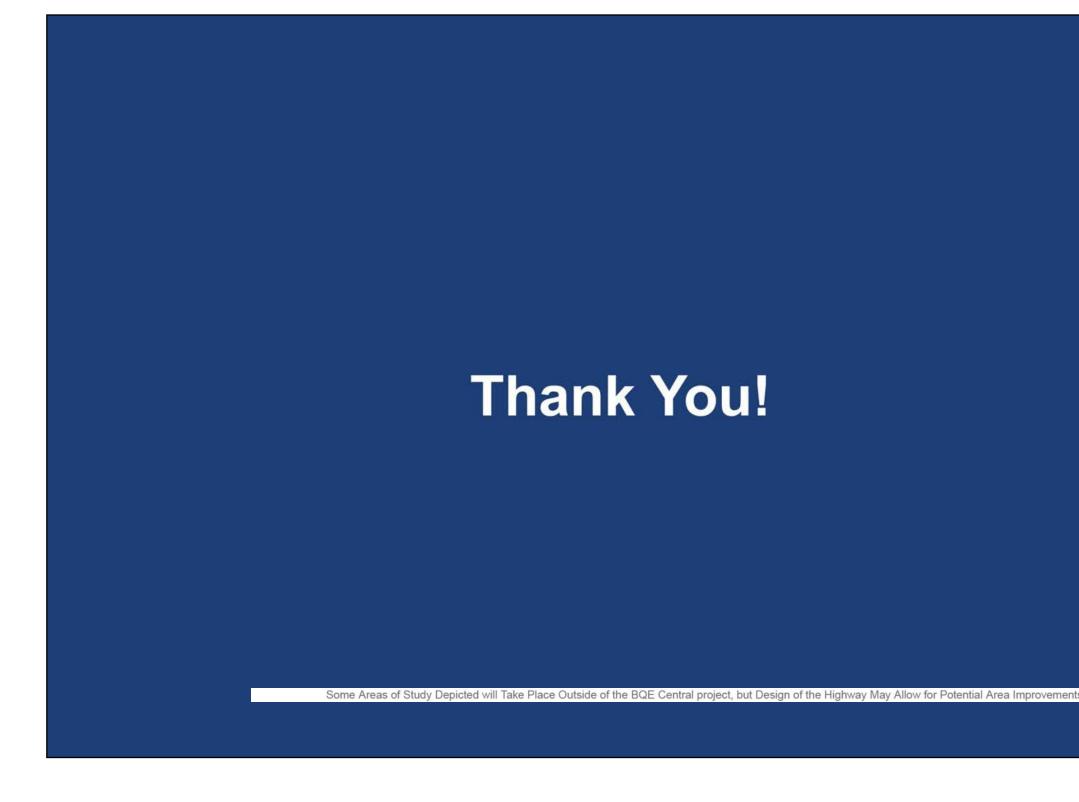
NYC DOT will continue the process of applying for federal infrastructure dollars as we work towards kicking off the environmental review.



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