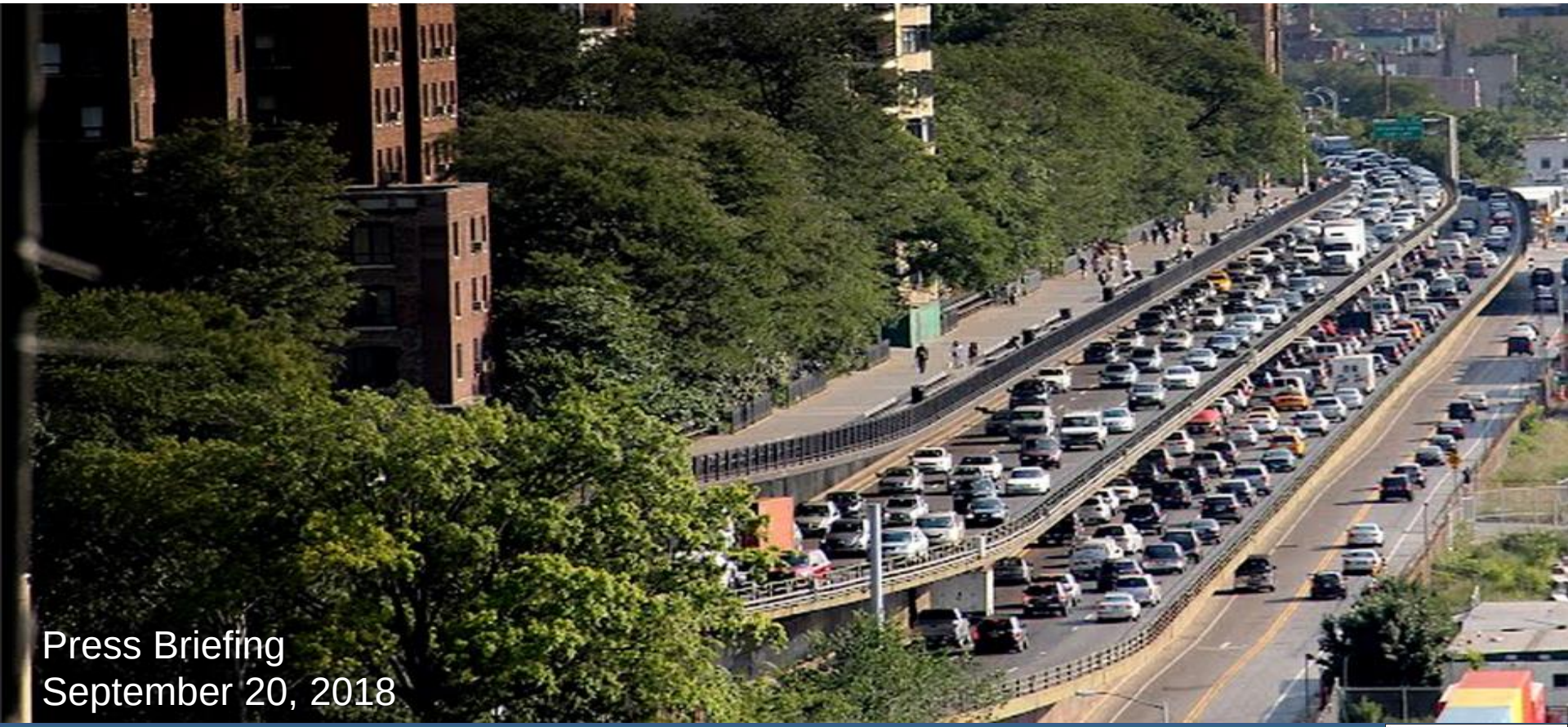
The Brooklyn-Queens Expressway Atlantic Avenue to Sands Street Project



Press Briefing
September 20, 2018

DRAFT

Project Corridor

DRAFT

Existing Conditions

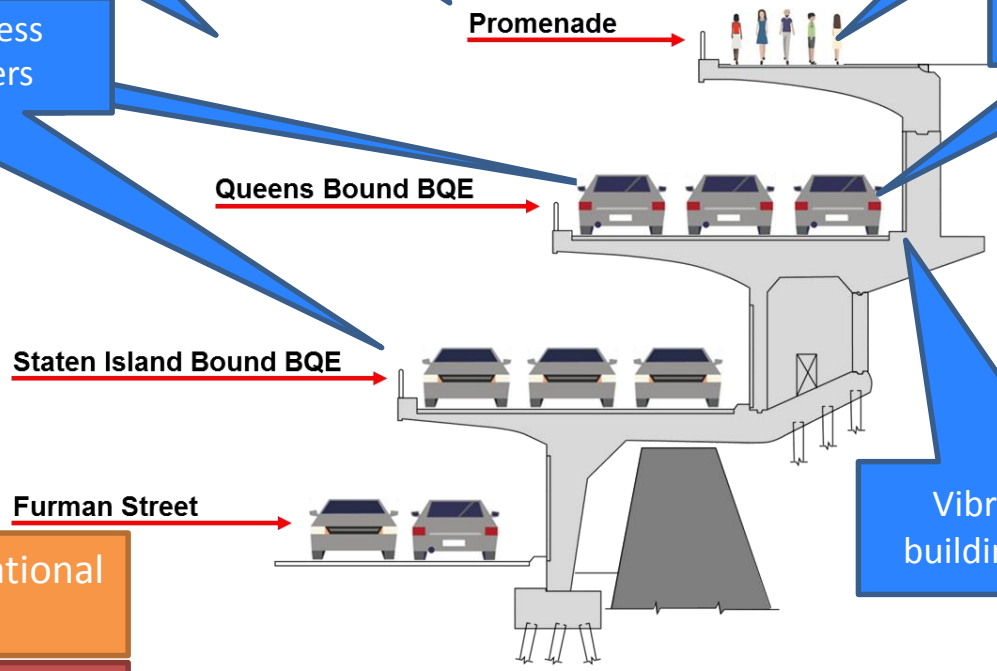
Limited vertical clearance

Non-standard lane widths

Lifespan of promenade tied to structure

Lack of emergency access due to limited shoulders

Unable to carry load in near future



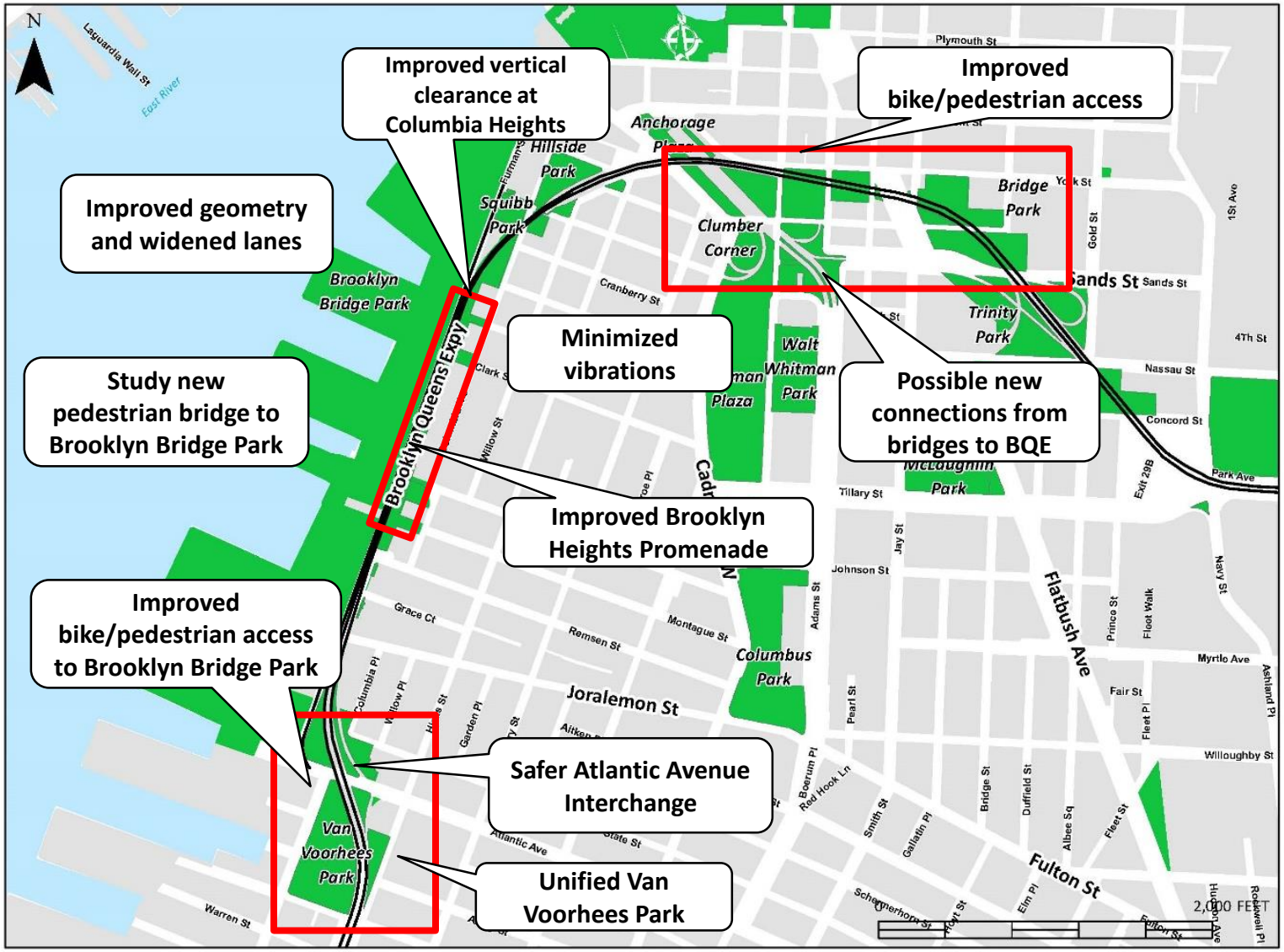
Vibrations to adjoining buildings due to cantilever

Geometry constraints to operational & safety improvements

Crash rate exceeds, in places, up to 10 times the statewide average

Triple Cantilever Cross Section

Re-Envisioning The BQE



DRAFT

Construction Methods

- In order to accelerate the project timeline and work around existing constraints and maintain traffic, the BQE project will require a **temporary roadway**.

- The type of temporary roadway we use determines:
  - The form of the final structure – what do we end up building?
  - The footprint or envelope we study during the environmental process

- **We have evaluated two potential methods:**

  1. Innovative Approach – Temporary Elevated Roadway

  2. Traditional Approach – Incremental Lane-by-Lane Construction

(Concepts for consideration, final method will be determined by DB Team)

Construction Methods

Innovative Approach – Temporary Elevated Roadway

- 100 year useful life; $3.2 - $3.6 billion
- Anticipated 6 year construction duration (to substantial completion)
- Greatest opportunity for safety, congestion reduction, noise/vibration reduction, connectivity, and aesthetic benefits
- Greatest certainty of cost and schedule
- Dramatic community impact (particularly on Promenade)

Traditional Approach – Incremental Lane-by-Lane Construction

- 100 year useful life; $3.4 - $4 billion
- Anticipated 8+ year construction duration (to substantial completion)
- Opportunity for safety benefits, but does not realize broader potential community improvements
- Significant uncertainty in cost and schedule
- Avoids dramatic Promenade impacts, but has major impact on much larger group of residents and drivers

Temporary Elevated Roadway: Staging

DRAFT

Temporary Elevated Roadway

The Temporary Elevated Roadway provides a greater ability to construct a safer highway that meets current standards, as well as opportunity for innovation and generational change in the surrounding area:

- Improve clearances and geometry, wider lanes, provide shoulders
- Benefits for those living adjacent to the BQE: eliminates vibrations and minimizes noise
- Brooklyn promenade width can increase, if desired, by approximately 35’
- Greatest opportunity for aesthetic improvements to final structure
- Enhance pedestrian and bike connectivity and access to Brooklyn bridge Park
- Only option that allows new direct connections from the Brooklyn and Manhattan Bridges to the BQE without additional extensive closures

Temporary Elevated Roadway

The Temporary Elevated Roadway provides numerous benefits during construction:

- Shortest anticipated construction duration (approx. 6 years to substantial completion)
- Greatest certainty of project cost and on time completion
- Fewest full weekend closures and overnight lane closures
- Avoids the worst traffic backups and diversions onto local streets across a number of Brooklyn neighborhoods including Brooklyn Heights, Cobble Hill, Carroll Gardens, Gowanus, and Sunset Park
- Best experience for drivers during construction – least impact on travel time and reliability

However, the trade-off is a temporary six-lane highway at the current Promenade level (for approx. 3 years)

- Much of the Promenade will be closed during construction
- Dramatic impact (primarily visual, also noise and access/circulation) for residents and visitors
- Major tree loss for both options during construction (tree restoration to follow)

Traditional: Incremental Method/Lane by Lane

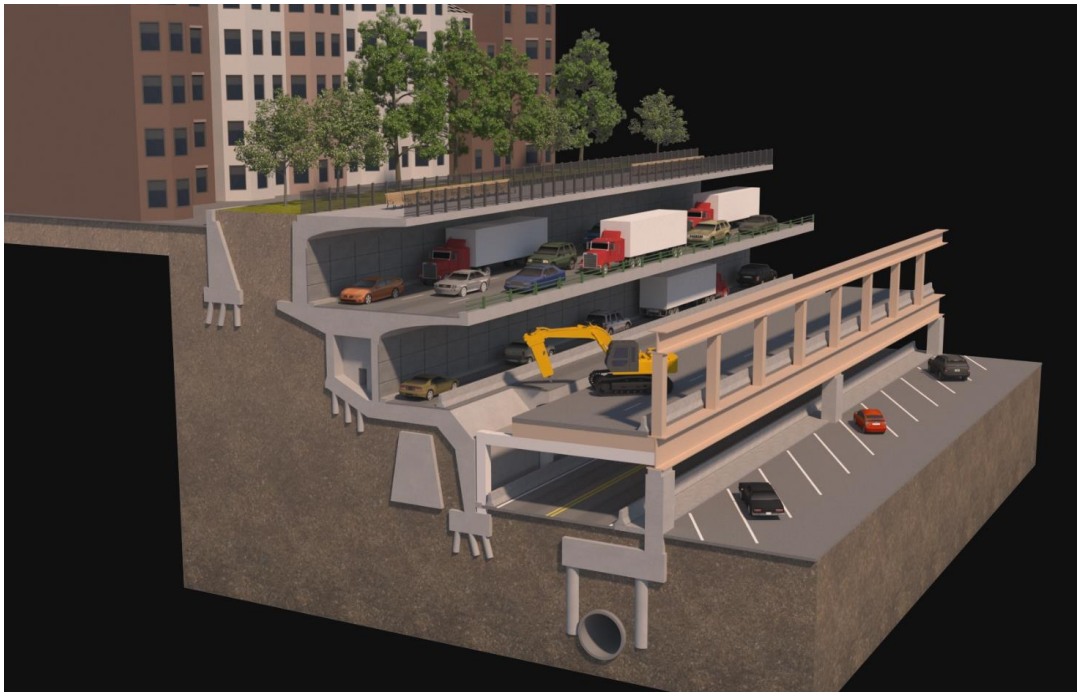
Traditional: Incremental Method/Lane by Lane

The Incremental Approach also allows us to construct a safer highway that meets current standards, but does not allow for larger community improvements and innovation

- Widened lanes, added shoulders, other safety improvements
- Mostly eliminates vibrations
- Promenade would be built at the existing width
- Avoids most severe Promenade closures; same tree loss as the first option (to be restored after construction)
- Some enhanced pedestrian and bike connectivity and access to Brooklyn Bridge Park
- Does not allow for new direct connections from the Brooklyn and Manhattan Bridges to the BQE without extensive additional closures

Traditional: Incremental Method/Lane by Lane

- Cost and on-time completion less certain
- Vertical clearance improvements limited
- Final configuration leaves column in front of 360 Furman St
- More full weekend closures (approx. 24 weekends) and overnight lane closures (over 4.5 years)
- Reliance on greater level of overnight activity = noise and greater likelihood of delay in restoring of lanes for daytime

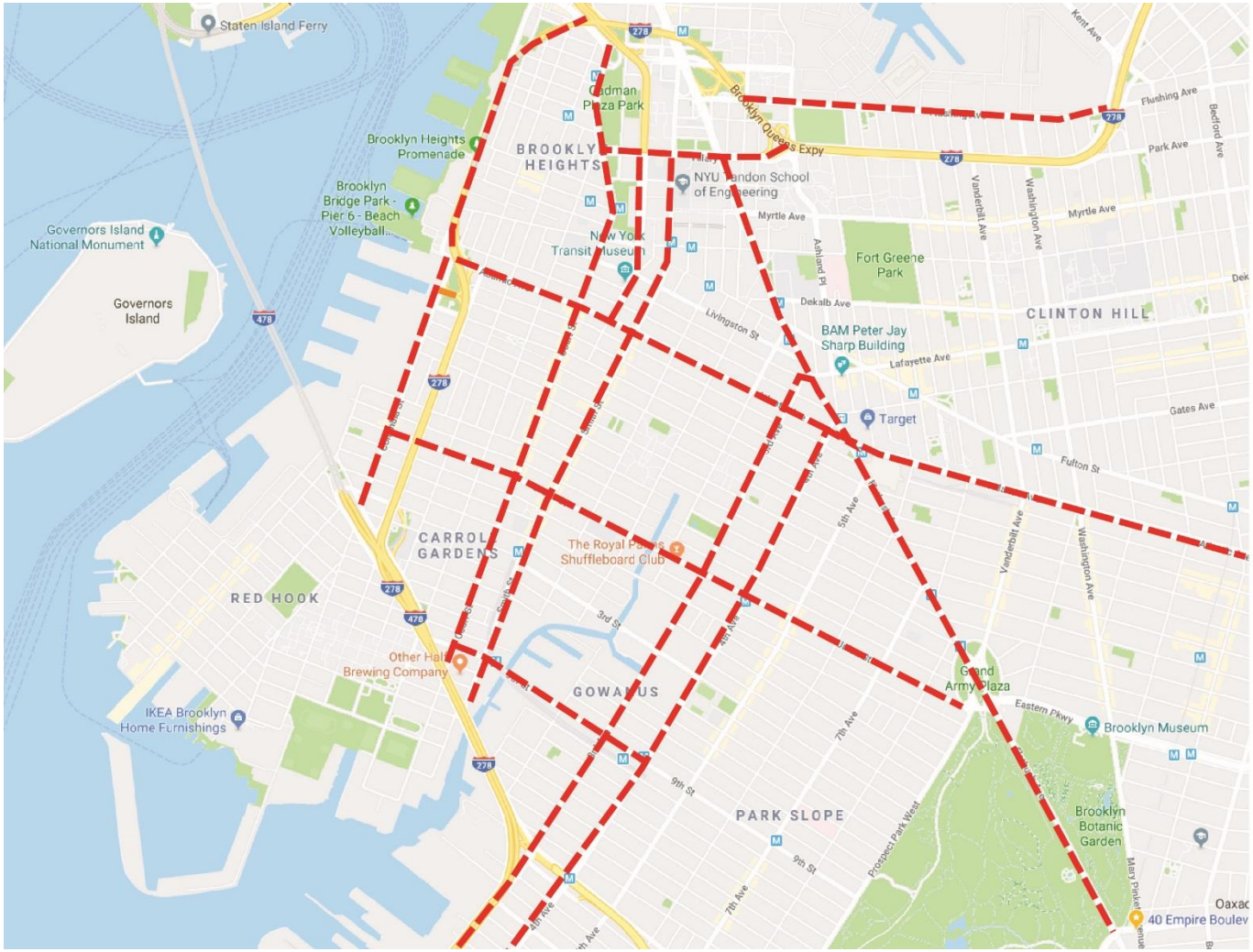


Incremental Challenges

"Cattle chute" driving conditions

- Congestion and safety concerns
- Any crashes in the narrow lane would have significant impacts on traffic
- Slower speeds, with back-ups throughout Brooklyn (potentially bleeding into Queens and Staten Island)

Incremental Challenges



DRAFT

Incremental Challenges – Traffic Impact

Overnight lane closures will be necessary over 4.5 years of the project. Unforeseen site conditions and disruptions may lead to issues re-opening lanes for daytime travel:

- **If all three lanes are able to open:**
  - Approx. 12,000 vehicles per direction unable to process per day (up to 1,200 vehicles per direction during the peak hour), meaning they will wait in additional traffic or choose to divert to local streets or regional alternatives to bypass the work zone.
  - This creates a 3 mile impact: Queens-bound back up from Atlantic to 39th Street in Sunset Park, Staten Island-bound from the Brooklyn Bridge back to Grand Street in Williamsburg
- **If only two lanes are open per direction:**
  - Approx. 31,000 vehicles per direction unable to process per day (up to 2,300 vehicles per direction during the peak hour)
  - This creates a 7 mile impact: Queens-bound back up from Atlantic to the Verazzano, Staten Island-bound from the Brooklyn Bridge back to Queens Boulevard.
- **If only one lane is open per direction:**
  - Approx. 53,000 vehicles per direction unable to process per day (up to 3,500 vehicles per direction during the peak hour).
  - This creates a 12 mile impact, longer than the BQE project area in either direction, reaching the Bronx in the North and Staten Island in the South

Anticipated Schedule*

- **September 27 – Public meeting presenting construction concepts**
- **Fall 2018 – Continuing public outreach on construction concepts**
- 2019-2020 – Procurement of Design-Build Team
- 2019/2020 –National Environmental Policy Act (NEPA) process
- 2020/2021 – Commencement of project
- 2026 – Substantial Completion (Temporary Elevated Roadway); 2028 or later (Incremental)

For more information, please visit:
https://www.bqe-i278.com/en

**Schedule subject to environmental approval and NYSDOT/FHWA approval*

Thank You!