

# BQE Atlantic to Sands Project Overview

1. Project Background
2. Current Conditions & Findings
3. Upcoming Activities





# THE PROJECT TEAM

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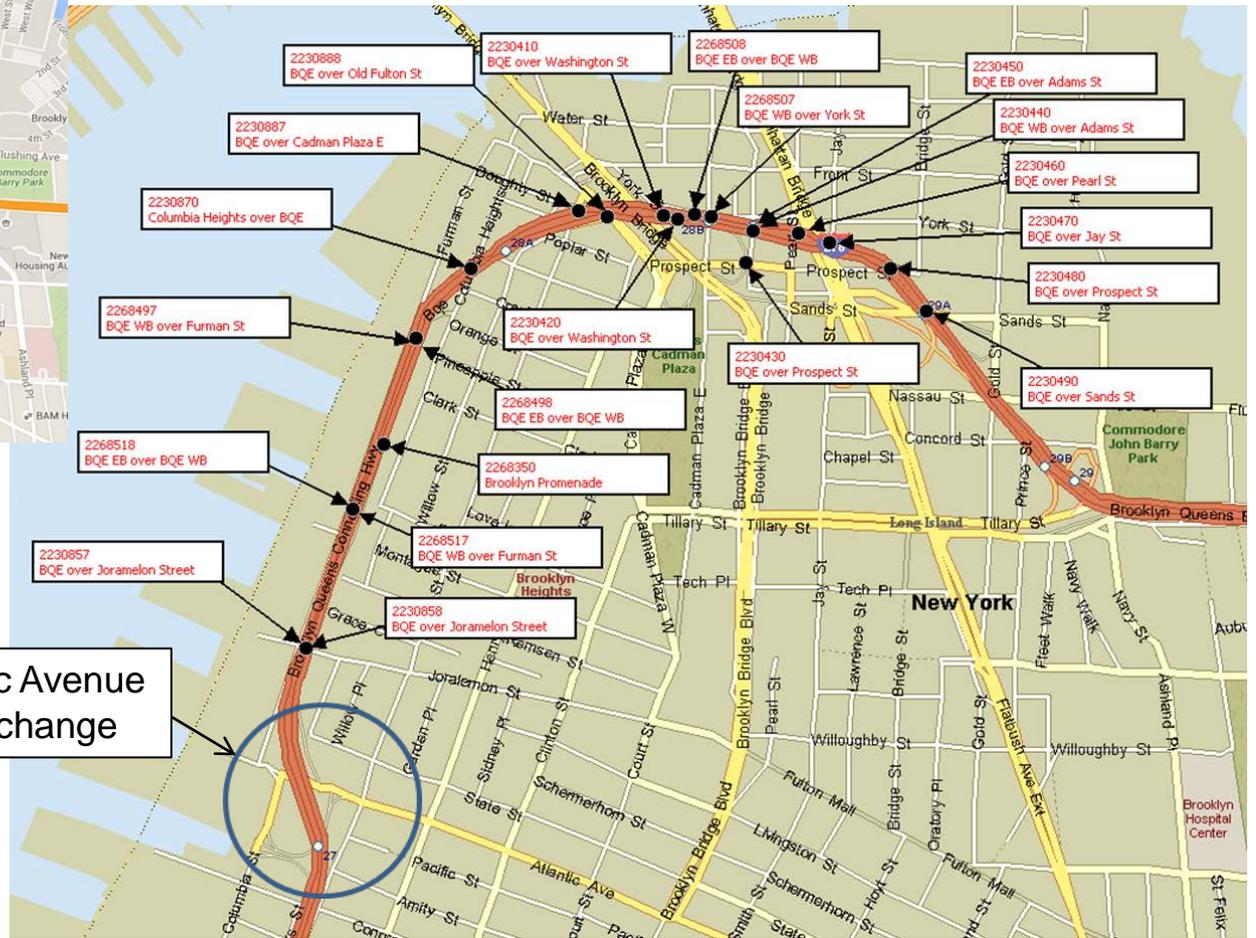
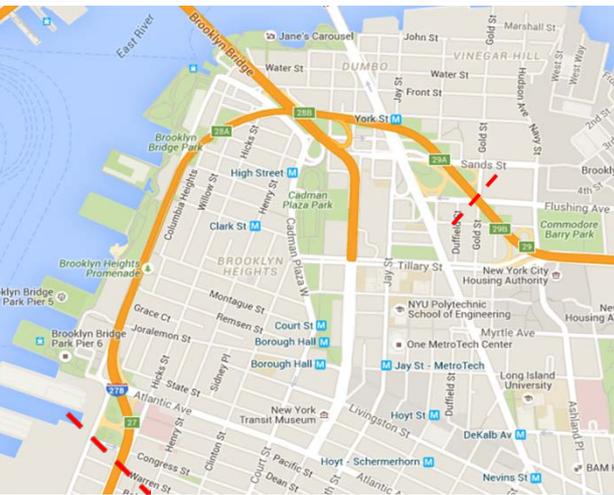
**Rebecca Zack**

Senior Director, Government Affairs

*For public questions and concerns:*

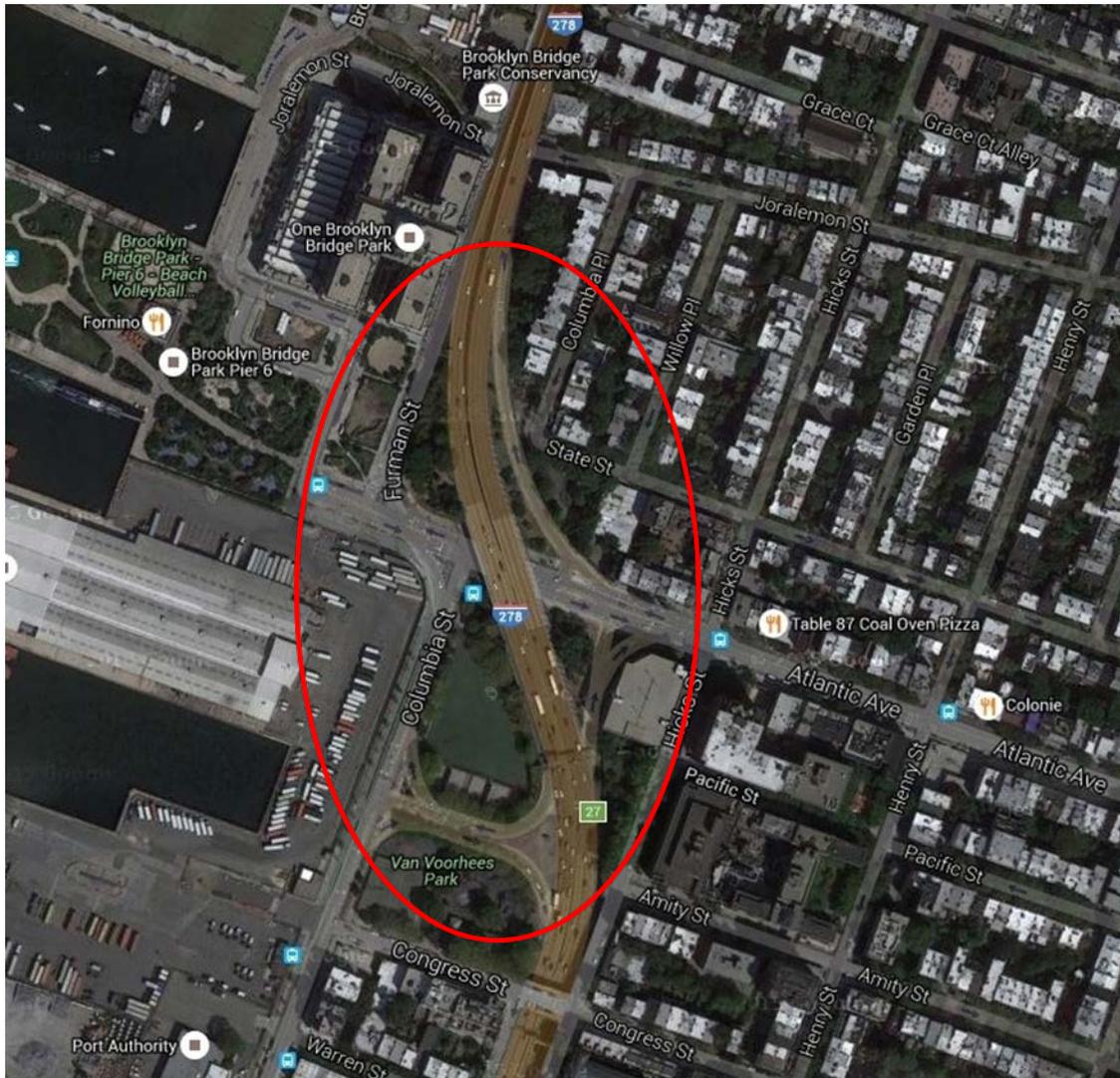
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# THE 21 BRIDGES



Atlantic Avenue Interchange

# ATLANTIC AVENUE INTERCHANGE



## Atlantic Avenue Structure:

- New York State rehabilitated the bridge structure in 1998.
- Rated in good condition in 2014.

## Substandard Ramps:

- NYCDOT will include a traffic study in the project scope to determine possible ramp improvements.

# THE TRIPLE CANTILEVER

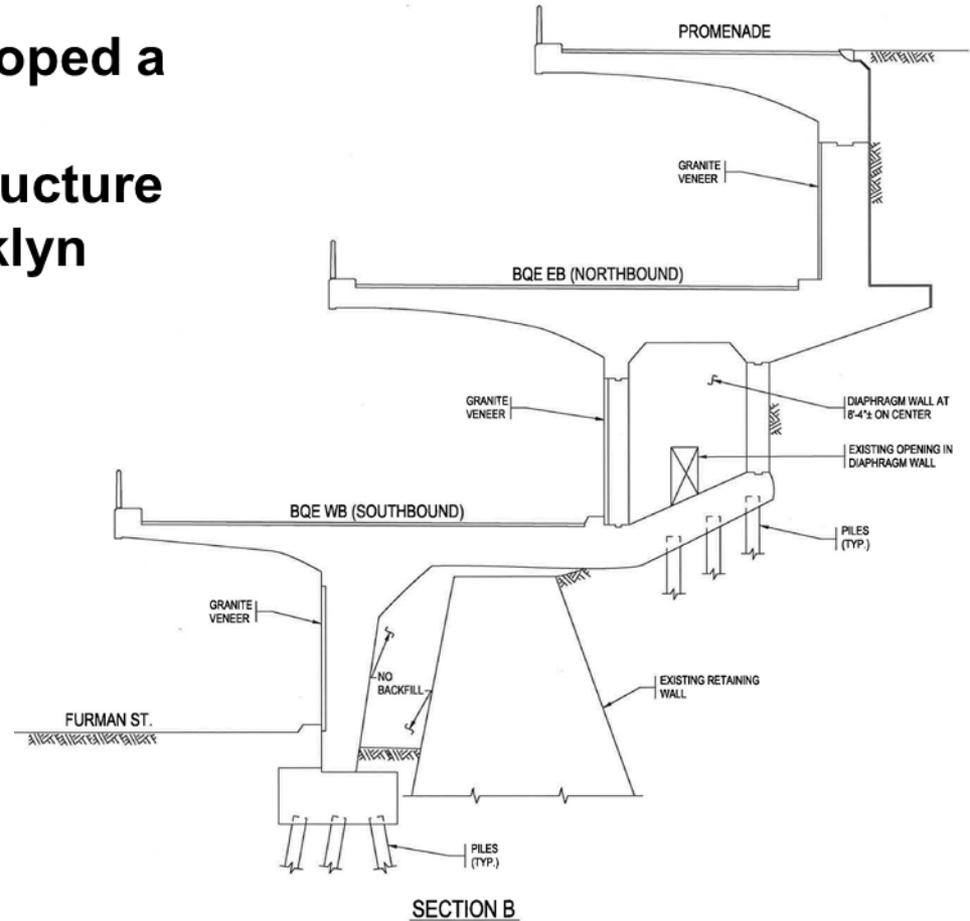


- A 0.4 mile long, reinforced concrete, multi-level structure
- Three cantilevers:
  - Two cantilevers carry the BQE (three lanes Queens-bound above three lanes Staten Island-bound)
  - Brooklyn Heights Promenade on the third cantilever
- Furman Street runs underneath the structure

# CANTILEVER SECTION

“...community groups developed a Citizen Alternative Plan that proposed a three-decked structure immediately along the Brooklyn Heights waterfront. “

*NYC Roads.com*



# PROJECT SCHEDULE

Total Design RFP Release	May 2016
Total Design/EIS Contract Start	Early 2017
Alternative Analysis/Draft EIS	2018
Preliminary Design Completion	2019
<i>Decision Point – Design/Build or Design-Bid-Build</i>	
Design Build – Construction Start	2021
Design-Bid- Build – Constr. Start	2022
Construction Duration – Approximately 5 years	
Project Completion –	2025-2026

# FUNDING

- DOT has forecast \$1.7B for this project in the City's Ten Year Plan
- Design Build procurement approach still a goal
- OMB has identified Parks promenade funding
- NYCDOT is working with Federal and State partners for additional funding

# A REGIONAL LINK

## Brooklyn's Only Interstate

A vital connector to/from:

- I-495 Nassau/Suffolk
- I-678 RFK/Points North
- I-278 Staten Island/Points West
- I-95/NJ Turnpike/Points South



# CURRENT OPERATION

The BQE is heavily traveled with many substandard conditions.

## Increasing Traffic:

- Annual Average Daily Traffic 2006 - 123,000
- Annual Average Daily Traffic 2009 - 140,000
- Annual Average Daily Traffic 2014 - **over 140,000**

One of the most heavily traveled roads in NYC

## Heavy Usage by Trucks:

- Trucks account for 11% of volume, on average
- As high as 17% during peak times

## Old Structure with Substandard Conditions:

- Non-standard geometry (tight turns, lack of acceleration lanes)
- Deficient vertical and horizontal clearances
- Deficient connectivity to Manhattan Bridge
- **2010 crash rate on 15 of 18 segments exceeds the statewide average (997 crashes in 2010)**

# CURRENT CONDITIONS: JOINTS & BEARINGS



BQE Cantilever



Old Fulton Street

# CURRENT CONDITIONS: UNDERCLEARANCE



Under Columbia Heights

# WHAT WE HAVE HEARD...

## Condition

- Driving safety issues
- Major delays due to breakdowns
- Noise and vibrations
- Lane closures
- Leakage and debris
- Sidewalk obstructions

## Cause

- Narrow lanes, ramp geometry
- No shoulders
- Poor structural joints and potholes
- Maintenance and repairs
- Deteriorating structures
- Temporary supports



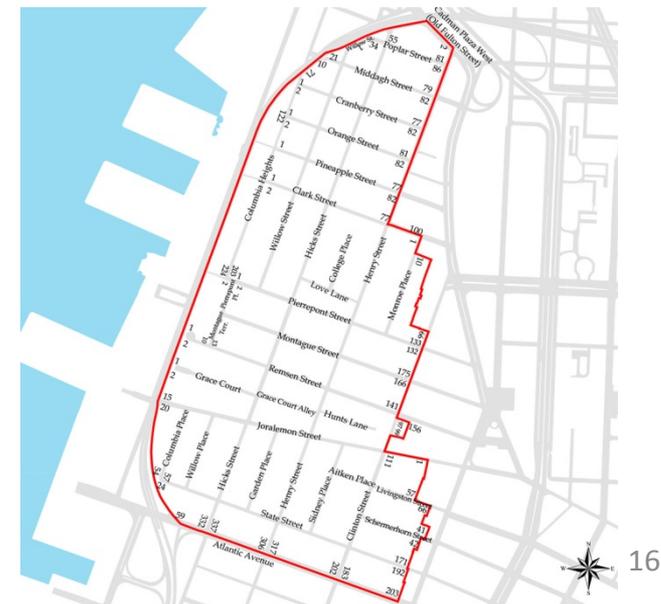
## Prior Efforts

March 2006	Accelerated construction & innovative design workshop (ACTT)
May 2009	Identified six potential tunnel alignments
2010	Study ended without selection of a preferred alternative
February 2011	Draft scoping report submitted to NYSDOT

# CURRENT NYCDOT PROJECT

# PROJECT CHALLENGES

- Engineering
- Maintaining traffic
- Protecting adjacent structures
- Recent development
- Environmental/SHPO/Landmarks issues
- Transit structures



# TRANSIT STRUCTURES



TA Vent

Old Fulton and Cranberry Streets



TA Power

Old Furman Street and Montague Streets



Furman Street

# PROJECT BENEFITS

The BQE project will have significant benefits for local residents, as well as drivers:

- Geometry improvements = safer travel
- Rehabilitated or fewer joints = quieter roadway
- New deck = improved ridability/no overhead debris
- New ramps = improved connectivity
- New/improved drainage = no ponding
- New lighting = safer/more attractive

## Key Steps

### BQE Project Panel of Experts

- Belt Parkway Alternatives Study
- Origin/Destination Study
- Tunnel Feasibility Analysis

# QUEENS BOUND TRAFFIC BREAKDOWN

## Queens-Bound AM:

- 58% of cars start in Brooklyn and have a destination within NYC
- 60% of trucks are traveling within NYC
  - 33% of these trucks began their trips in Brooklyn

## Queens-Bound PM:

- 65% of cars start in Brooklyn and have a destination within NYC
- 68% of trucks are traveling within NYC
  - 44% of these trucks began their trips in Brooklyn

Over 60% of truck traffic has a destination within NYC, and of that, over 30% serve Brooklyn



# STATEN ISLAND BOUND TRAFFIC BREAKDOWN

## Staten Island-Bound AM:

- 40% of cars start in Brooklyn and have a destination within NYC
- 90% of trucks are traveling within NYC
  - 23% of these trucks began their trips in Brooklyn

## Staten Island-Bound PM:

- 32% of cars start in Brooklyn and have a destination within NYC
- 95% of trucks are traveling within NYC
  - 28% of these trucks began their trips in Brooklyn

Over 90% of truck traffic has a destination within NYC, and of that, over 20% serve Brooklyn.



# TUNNEL OPTIONS



## Seven Tunnel Options Studied:

T1 Running through downtown Brooklyn by Henry Street

W-1 Variation of T-1, running by Hicks Street

T-2 Existing BQE Corridor Alignment

T-3 Outboard tunnel similar to existing alignment

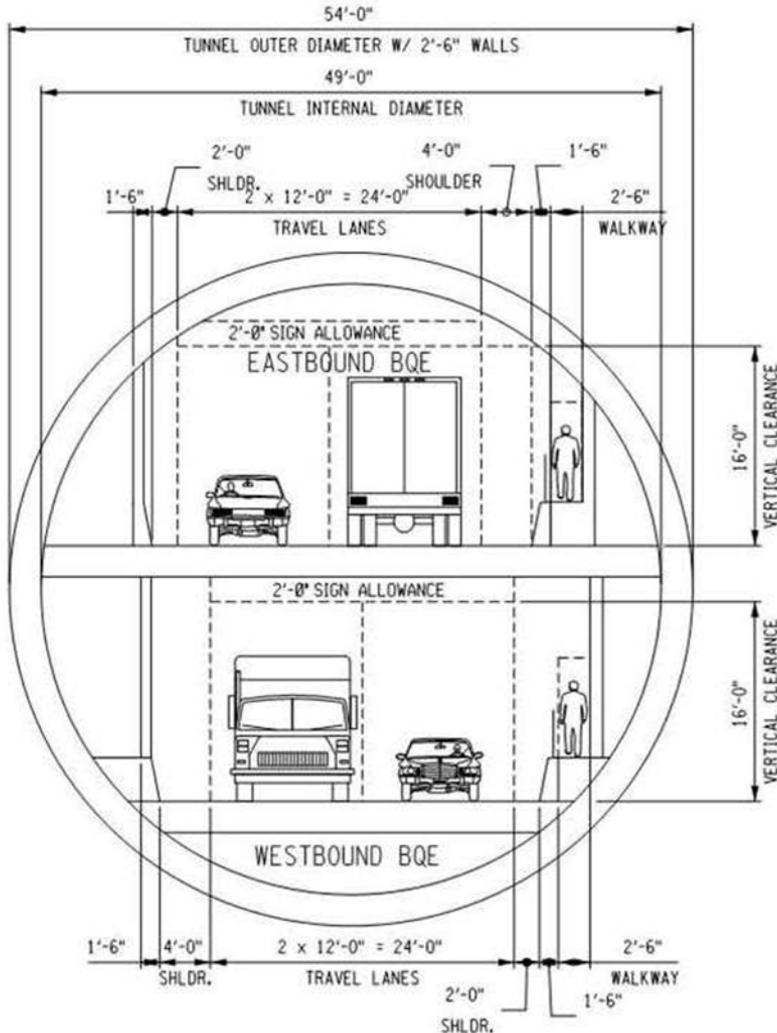
W-2 Straight-line tunnel between exits 24 and 30

W-3 Outboard tunnel connecting Sunset Park and exit 33

W-4 Fourth Avenue outboard tunnel between exits 24 and 30



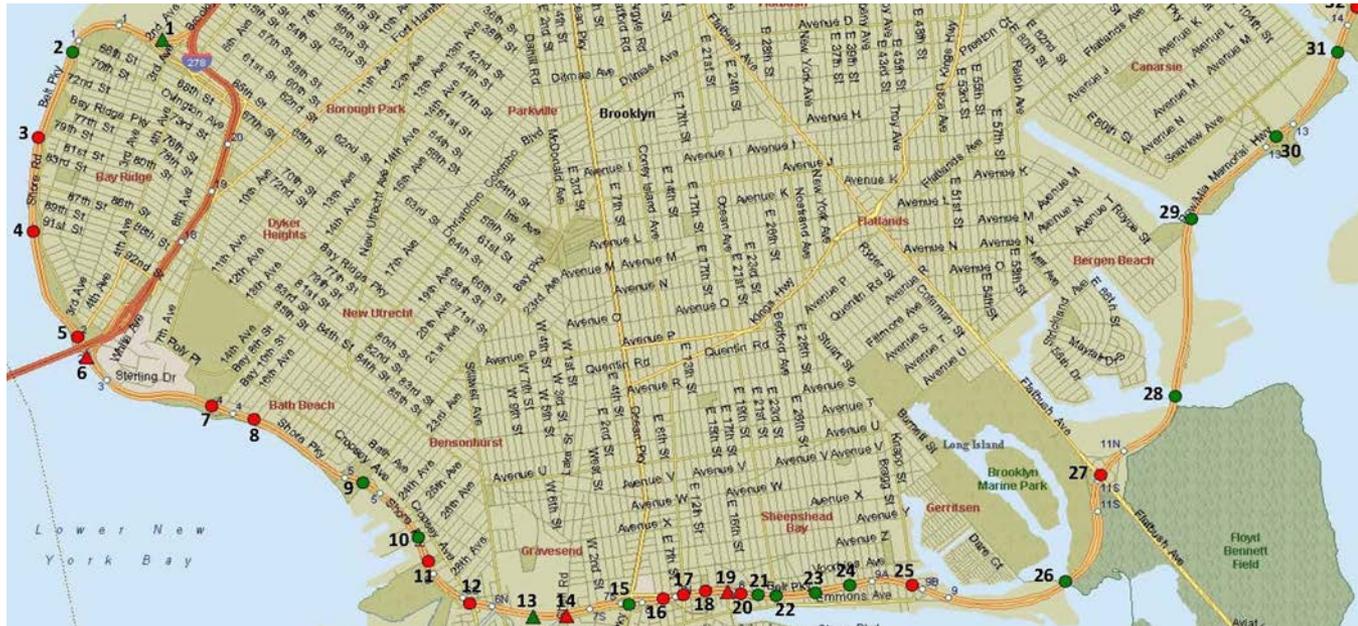
# TUNNEL OBSTACLES



## Major Obstacles

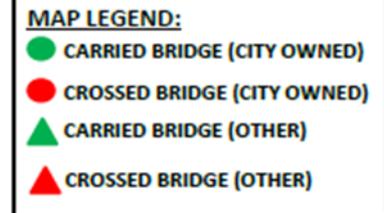
- All but 2 configurations conflict with DEP's water tunnel.
- Feasible cross-section allows only two lanes of traffic in each direction.
- Tunnel requires that we also maintain the existing BQE structure:
  - to accommodate existing volume
  - to provide connectivity to the Brooklyn and Manhattan Bridges (50% of BQE traffic currently uses exits that the tunnel would not serve)
- Tunnel options are prohibitively expensive, costing at least several billion

# BELT PARKWAY ALTERNATIVE STUDY

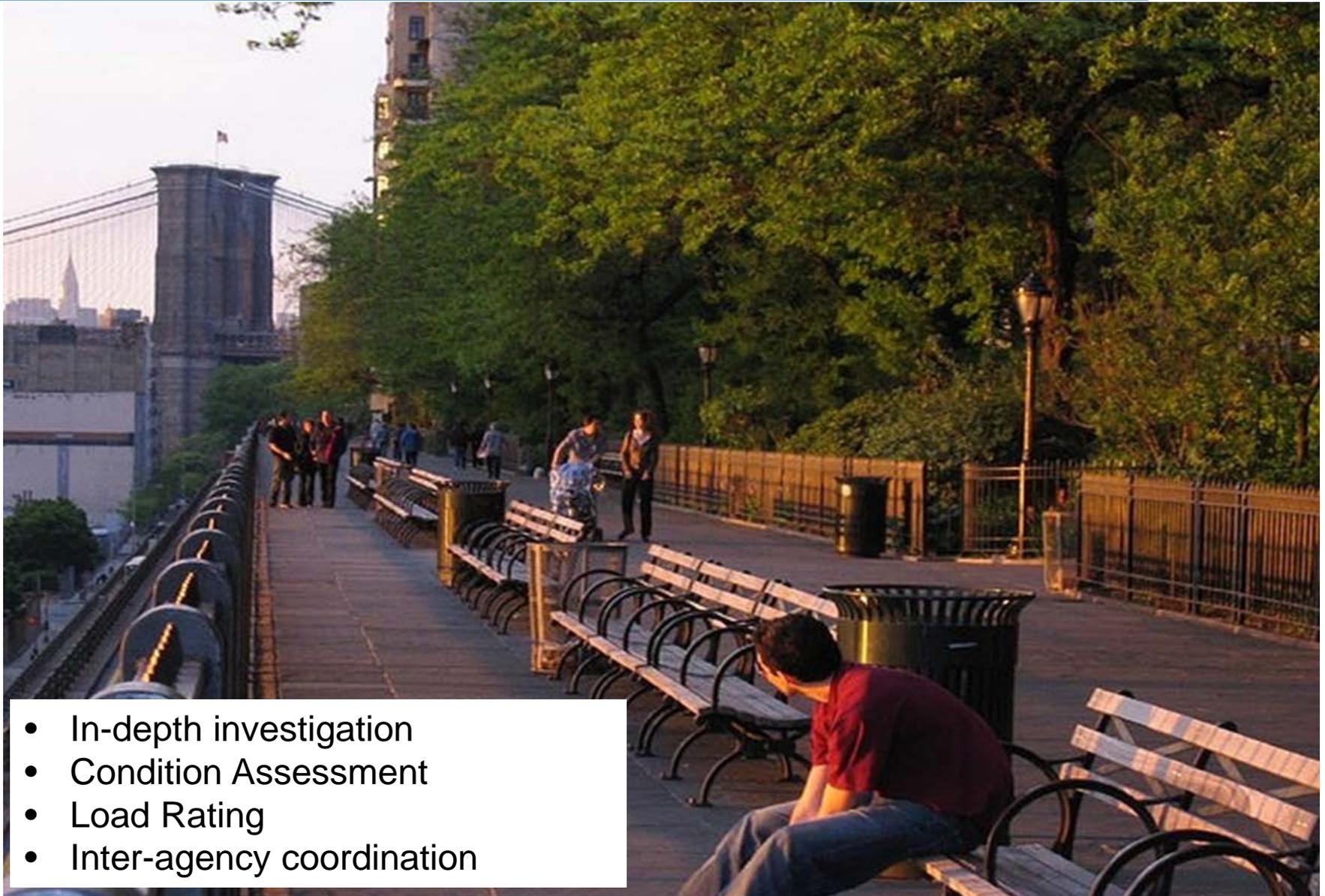


## The Belt Parkway is not a feasible alternative:

- Low vertical clearance, including NYCT active lines
- Narrow lane widths
- Sub-standard geometry at ramps
- Carrying capacity
- Cost \$800M - \$2B



# WHERE WE ARE NOW



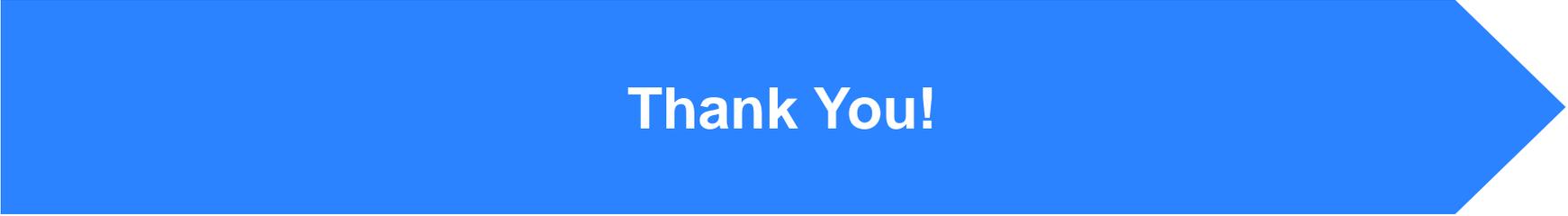
- In-depth investigation
- Condition Assessment
- Load Rating
- Inter-agency coordination

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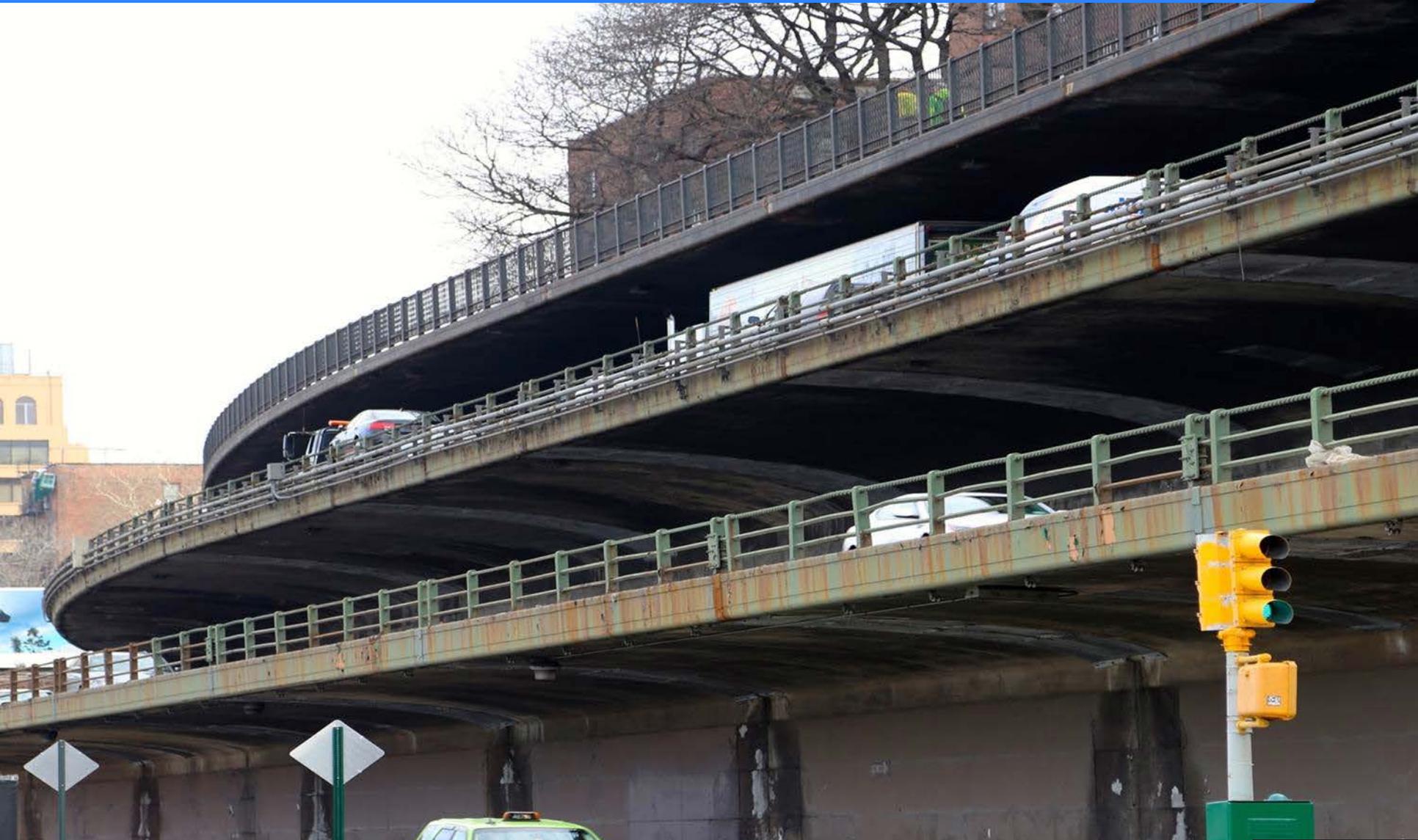
# PUBLIC OUTREACH PLAN

- **During Scoping Phase(on-going):**
  - Informational meetings with community boards
  - Finalize key stakeholder list
- **During Design Contract (early 2017 through 2022):**
  - Create Notification Network of local businesses, organizations, residents
  - Form project Working Group
  - Formal public information sessions
- **During Construction Contract (2021 through 2026):**
  - On-site information booth for on-going activities
  - Continue outreach through Working Group



**Thank You!**

# BQE Triple Cantilever Project Briefing



Commissioner Polly Trottenberg, New York City Department of Transportation  
April 20, 2016

