



# MBTA SOUTH SHORE GARAGES REPAIR AND IMPROVEMENT PROJECT

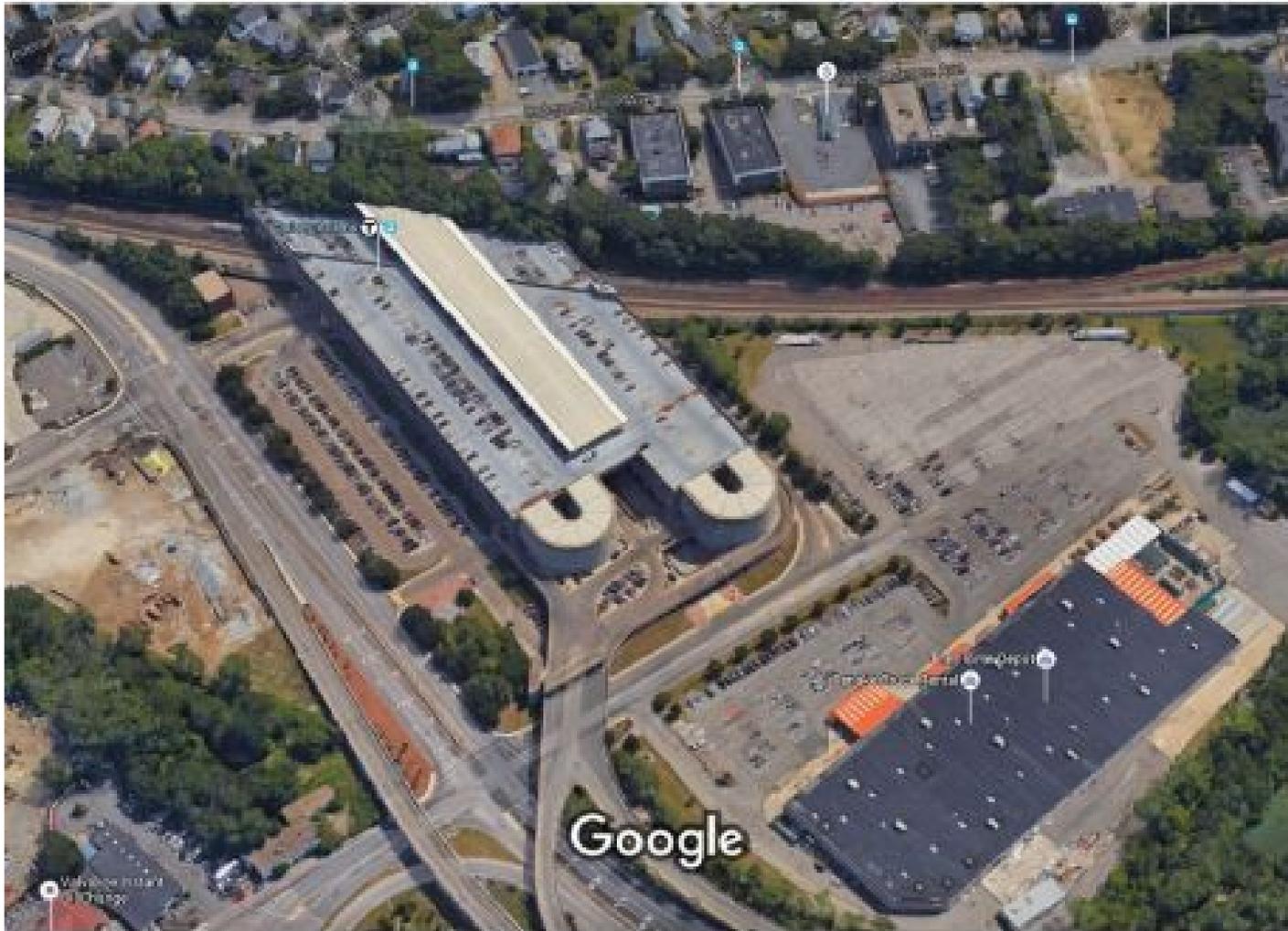
## Quincy Adams Garage Design Presentation

April 11, 2017



Kleinfelder, Inc.  
Walker Parking Consultants | Architectural Engineers, Inc.  
Keville Enterprises, Inc. | Vertical Transportation Excellence | WSP Group

# Quincy Adams Aerial View



# South Shore Garages Improvement Project Overview

- Single construction contract to repair and improve the Quincy Adams and Braintree Garages.
- Anticipated Contract Award Date - June 2017
- Construction to begin Fall 2017
- Estimated Construction Duration = 3.5 years
- Estimated Overall Construction Cost = \$ 92 mil.

## PROJECT GOALS:

- Deferred/preventative maintenance and repairs to bring the garages into a state of good repair.
- End of service life replacement and upgrades to building elements/systems to improve garage function.
- Improved traffic circulation and increased parking capacity.
- Improved accessibility within garage.
- Improved pedestrian and vehicle wayfinding signage.

## Quincy Adams Garage Improvements:

- Parking Layout Improvements.
- Traffic Circulation Improvements.
- Accessibility Improvements.
- Atrium Repairs and Improvements
- Stairwell Code Compliance Upgrades.
- Renovated Parking Service Office.
- Garage System Repairs and Improvements.

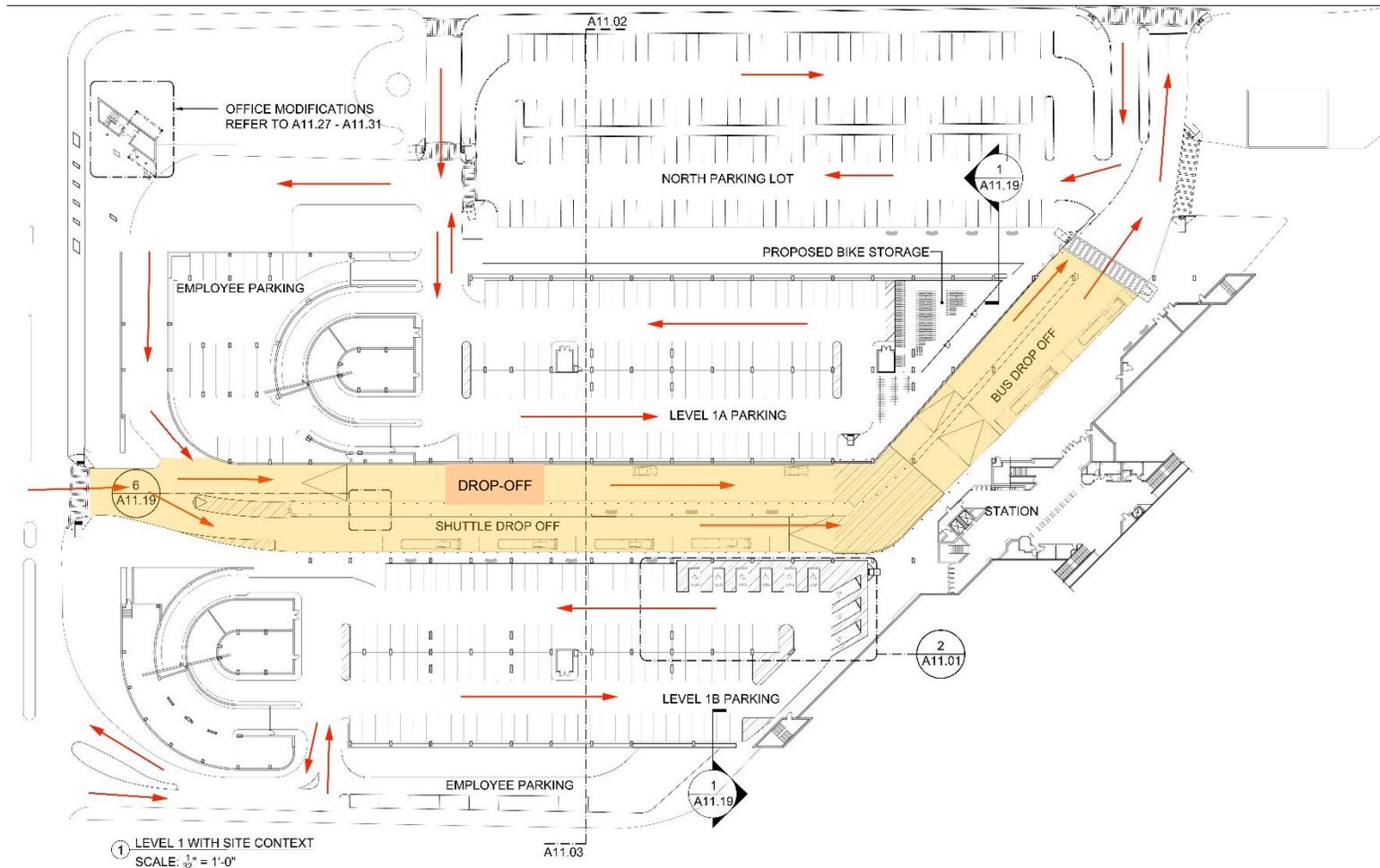
# Quincy Adams Parking Layout Improvements

- Increase in number of available parking spaces.
  - 29 total spaces gained (2,060 vs. 2,031)
  
- Accessible parking spaces provided on all garage levels.
  - 13 total accessible spaces gained (37 vs. 24 )

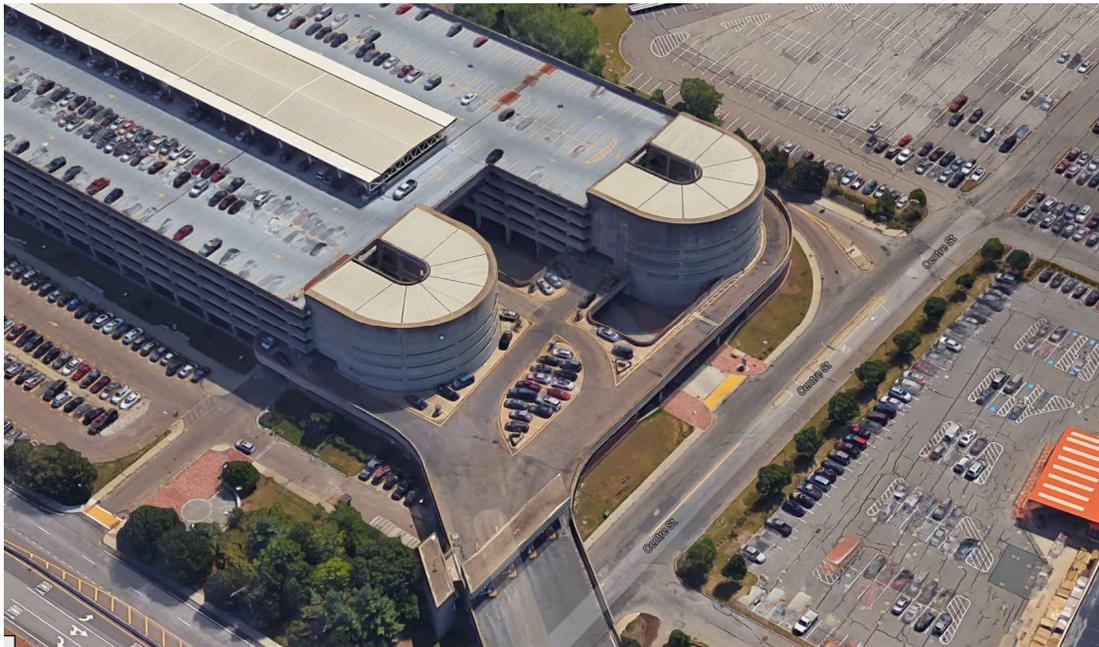
# Quincy Adams Traffic Circulation Improvements

- Improved Drop –off / Pick-up area layout to reduce traffic congestion.
- New pedestrian wayfinding and traffic signage at all levels.
- Improved parking layout and pedestrian crossings on the 2<sup>nd</sup> level toll plaza area.
- Improvements to the north exterior parking consisting of new pavement, striping, improved drainage, and lighting.

# Improved Drop-off / Pick-up Area Circulation and Enclosed Bicycle Parking



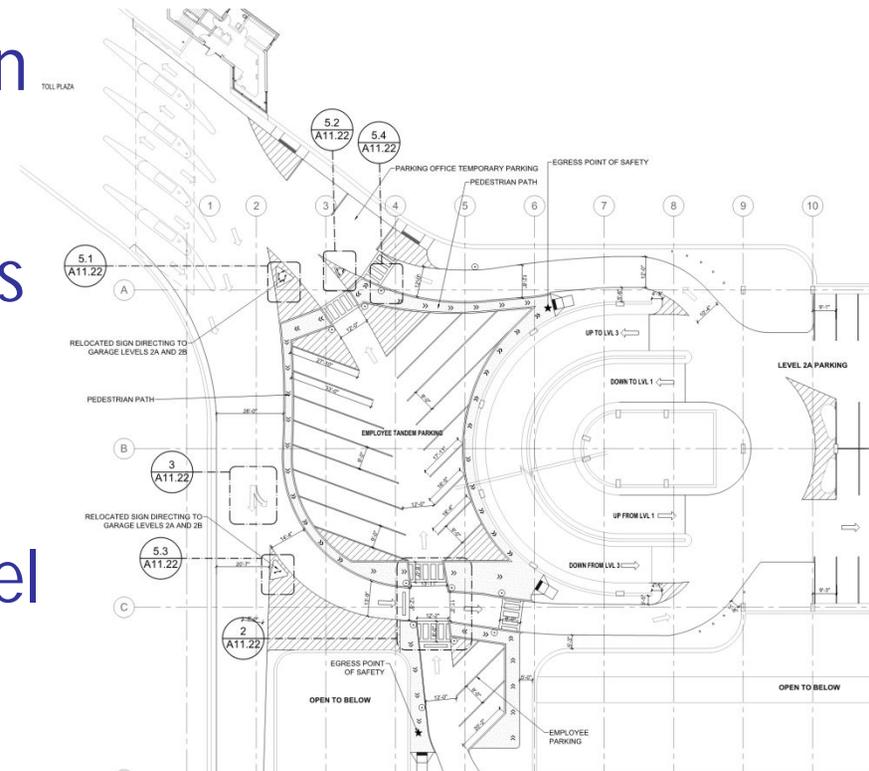
# Improved Parking and Pedestrian Access Level 2 Toll Plaza



Existing Conditions

# Improved Parking and Pedestrian Access Level 2 Toll Plaza

- New traffic and pedestrian wayfinding signage.
- Elimination of raised curbs to improve snow plowing operations.
- Improved pedestrian travel path to and from garage.



Proposed Improvements

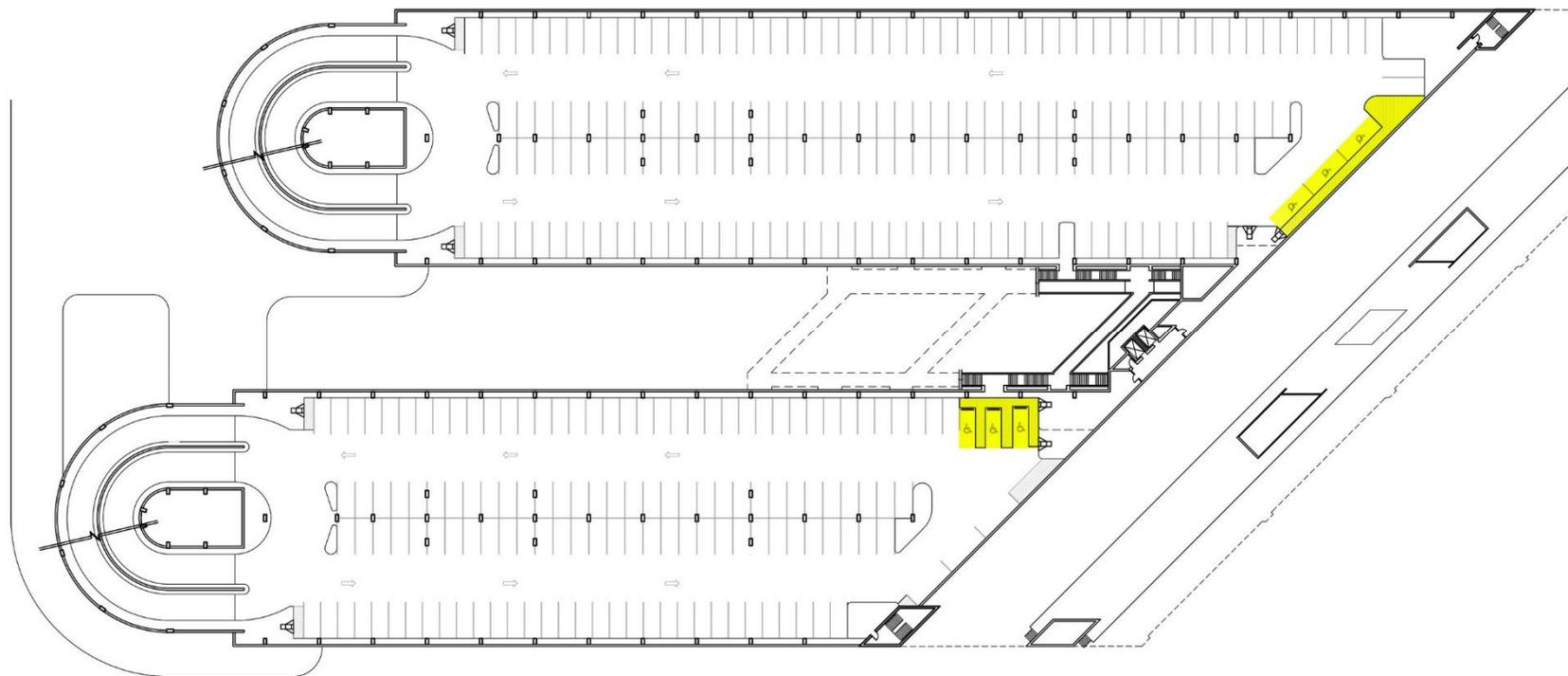
# Accessible Parking

- Grade level accessible van parking is adjacent to Station entry.



# Accessible Parking

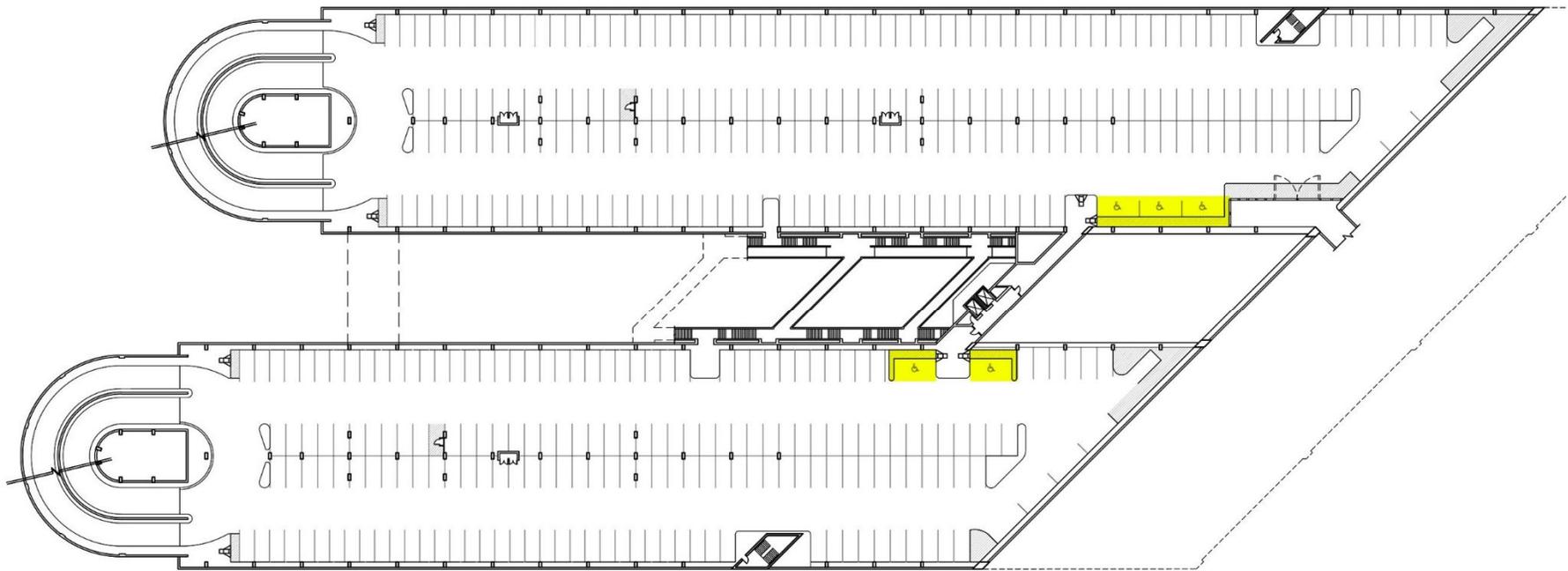
- Spaces at all levels are located adjacent to elevator core.



Levels 2, 3, and 6

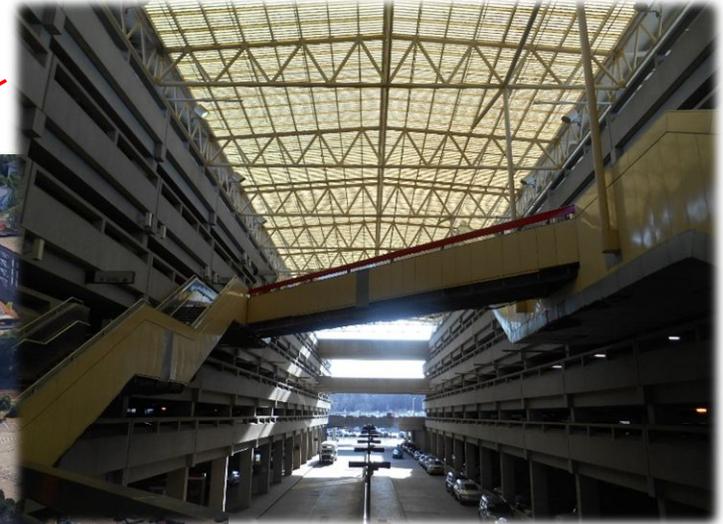
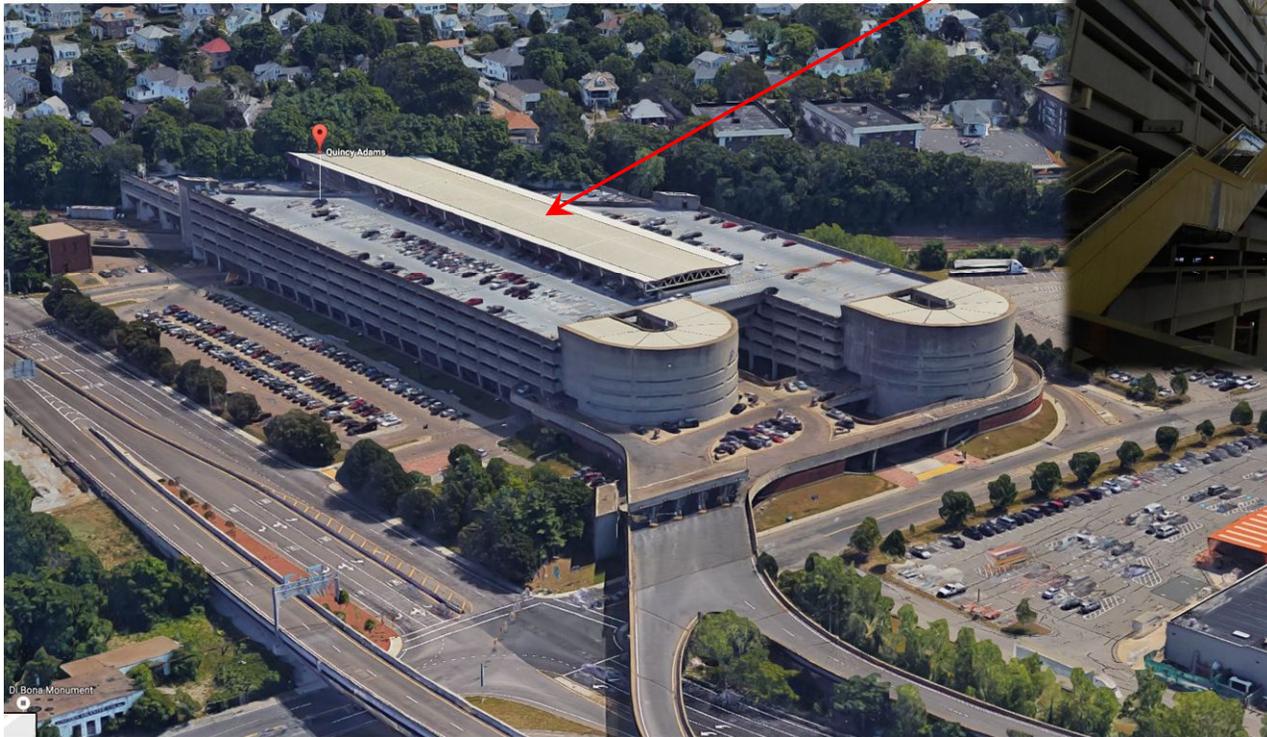
# Accessible Parking

- Atrium elevators to be replaced under a separate construction contract – Early 2018 (Est.)



Levels 4 and 5

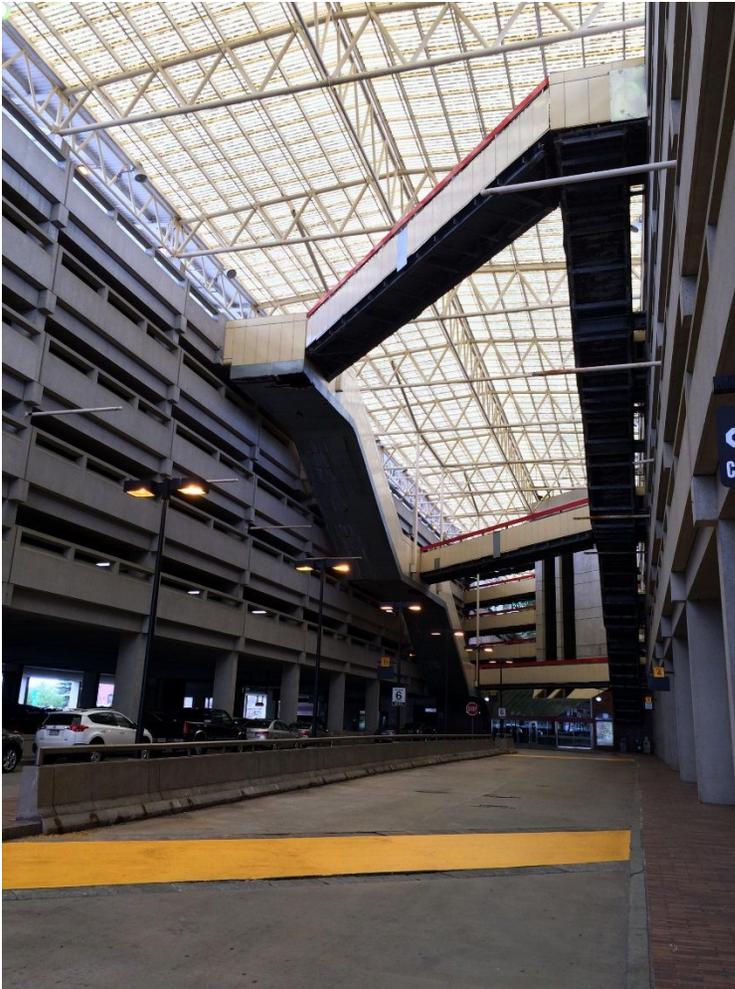
# Atrium Repairs and Improvements



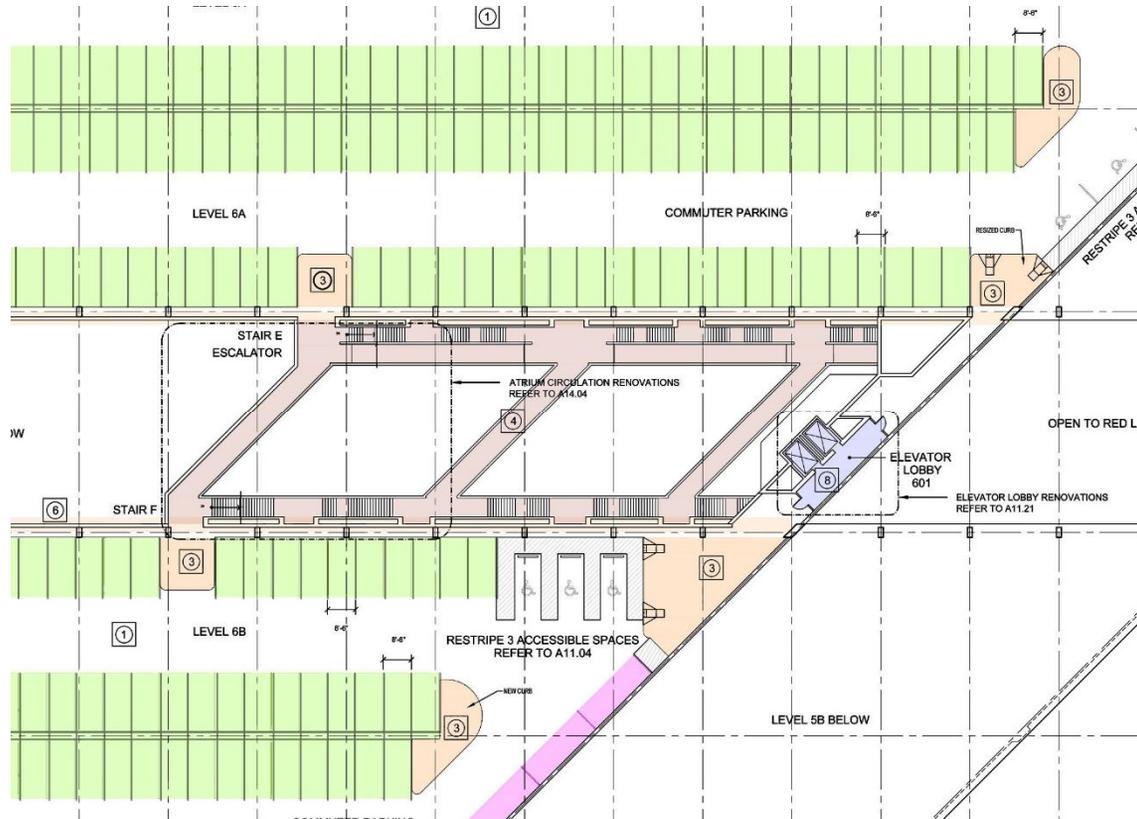
## Atrium Repairs and Improvements:

- New compliant fiberglass roof over atrium.
- New roof gutter and leader system.
- New aluminum stair tread-riser system.
- Replace existing metal panel enclosure with non-corrosive materials.
- Atrium escalator to remain in service.
- Stairs and cross bridges to be closed in a phased approach.

# Atrium Stair Renovations

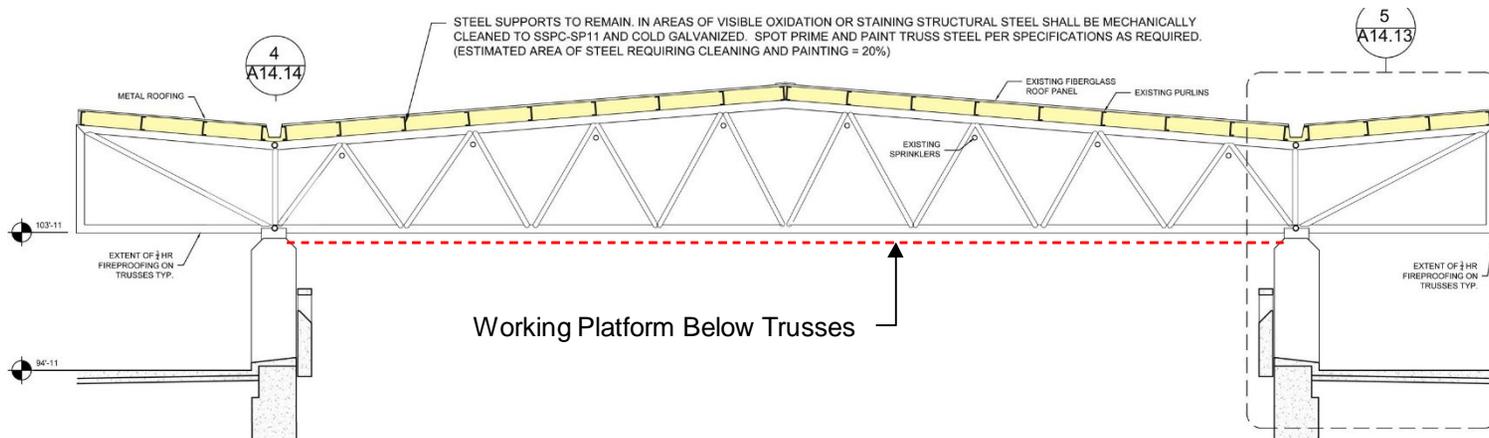


# Atrium Stair Renovations

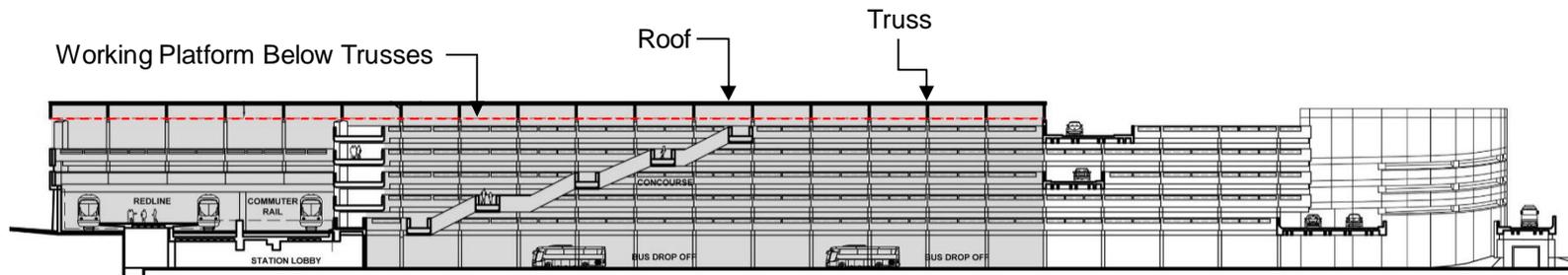


Atrium Stair Plan

# Atrium Roof Replacement

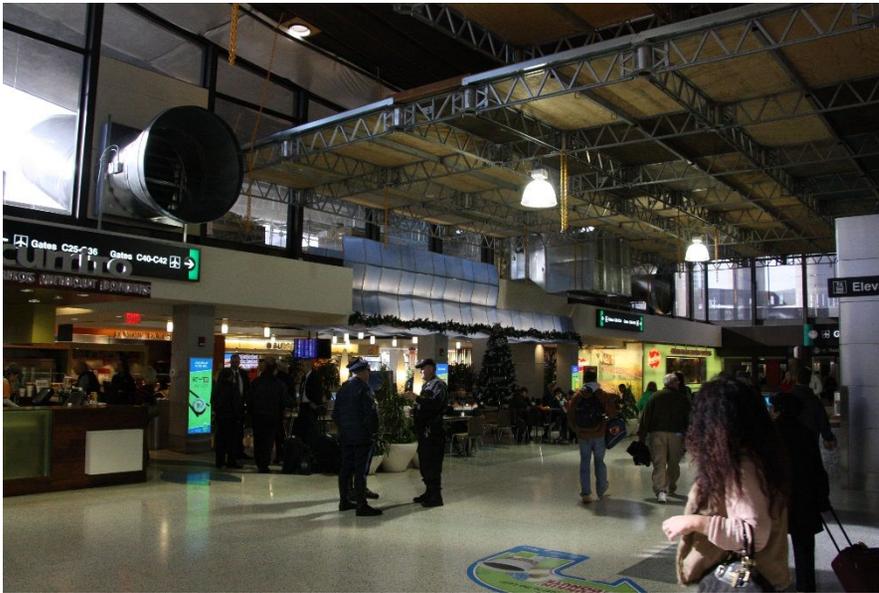


Concourse Truss Section at Roof Level



Concourse Section

# Atrium Roof Replacement



## Suspended Staging Platform

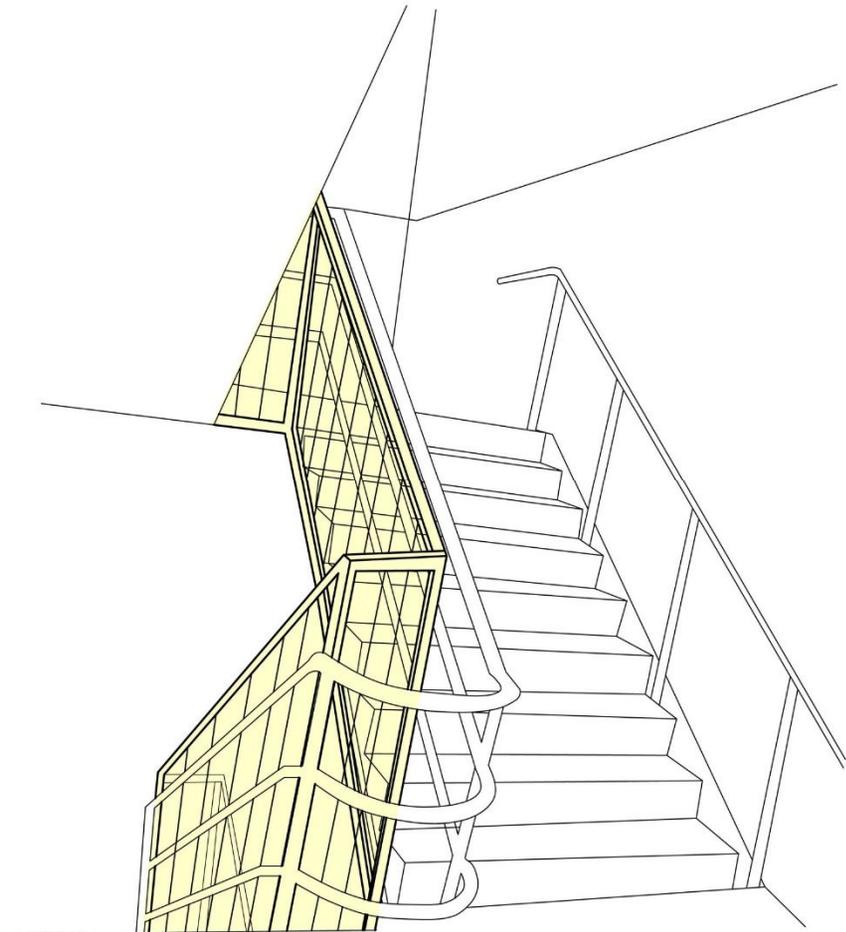
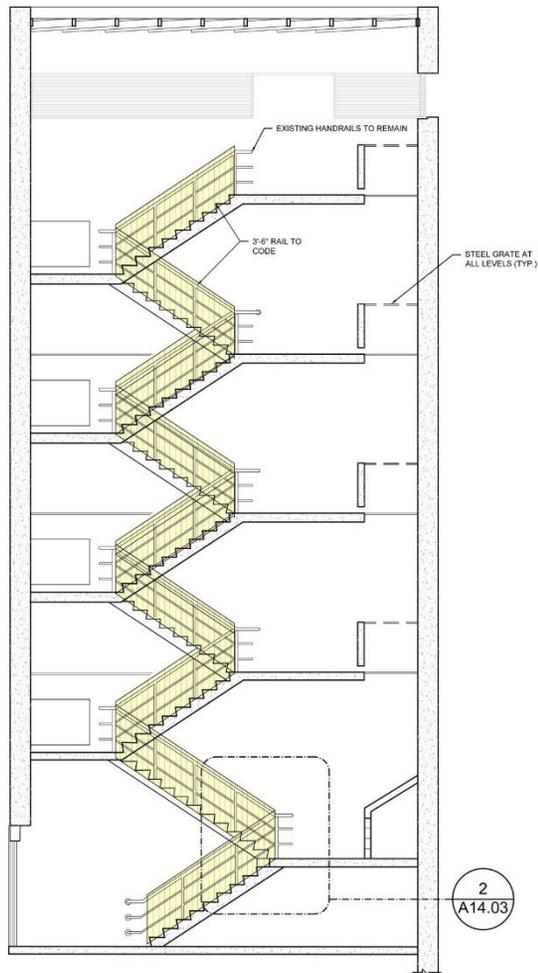


## Potential Independence Avenue Community Access Path (Only opens upon City Approval)

- Upgrade path to ensure it meets current accessibility requirements.
- Landscaping improvements
- Security improvements
  - New cameras.
  - Emergency call boxes.
  - Lighting
  - New pedestrian access gates



# Stairwell Egress Code Compliance



# Quincy Adams Garage Structural Repairs:

- Concrete Repairs
  - Beams
  - Columns
  - Floor Decks
  - Precast Tees
  - Walls



## Quincy Adams Garage Structural Repairs:

- Expansion Joint Replacement
- Open Parking Decks to Receive a Waterproofing Traffic Membrane Coating
- Covered Parking Decks to Receive a Penetrating-Corrosion Inhibiting Sealer
- Clean Garage Exterior Facades



## Quincy Adams Centre Street Bridge Repairs:

- Replace Pavement
- Replace Waterproofing Membrane
- Replace Expansion Joints
- Concrete Pier and Steel Superstructure Repairs
- Work to be performed during overnight periods.  
Two weekend shutdowns are anticipated to perform pavement and waterproofing replacement.



## Quincy Adams Garage Plumbing Repairs:

- Remove and replace all garage drains.
- Remove and replace all sanitary waste piping systems down to 18" above finished grade and connect to existing underground piping systems at this location.
- Remove and replace all storm water piping systems down to 18" above finished grade and connect to existing underground piping systems at this location.
- Jet clean all underground piping systems before final connections to ensure proper flow in piping.

## Quincy Adams Garage Electrical Improvements:

- Lighting – Replace existing lighting systems.
- Power – New power distribution to new lighting.
- New emergency distribution panels and circuiting to lighting will be provided.
- Fire Alarm – Replace existing fire alarm system in entirety.

## Quincy Adams Garage CCTV System:

- Approximately 50 cameras will be added.
- Cameras at each vehicle entrance and exit. Front and rear view of the vehicle will be captured.
- Cameras at each pedestrian entrance into the Stairwells.

# Thank You.

○ Questions and Comments