Midtown Bus Master Planning Update

Public Session

March 19, 2015

Midtown Bus Master Planning Update

- Planning team has been at work for a year and a half.
- Addresses trans-Hudson buses today and into 2040.
- Includes commuter buses from NJ, NY, and PA and intercity buses (which are non-commuter buses traveling longer distances).
- Consultant team:
  - Kohn Pedersen Fox Associates (Architects)
  - Parsons Brinckerhoff (Engineering)
  - Skanska (Construction Staging)
  - Thornton Tomasetti (Structural Engineering)
  - VJ Associates (Estimating)

Goals for Bus Master Planning

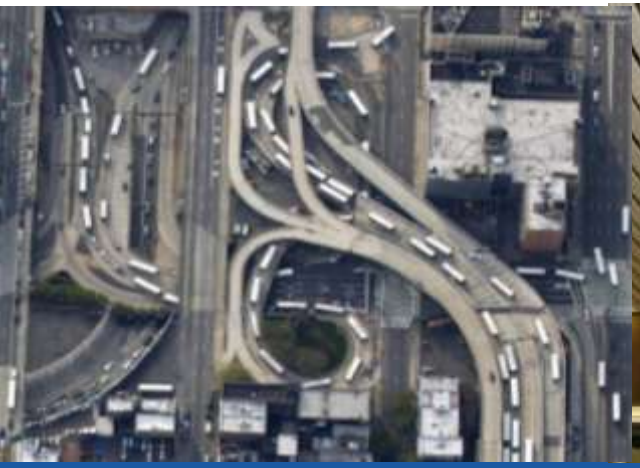
- Improve customer experience
- Increase capacity and operational efficiency
- Modernize terminal
- Reduce neighborhood impacts
- Develop funding and phasing strategies
- Strengthen role of buses as most flexible, resilient link in trans-Hudson network

Major Issues at the PABT

- Quality of service – lines, delays, reliability.
- Current peak demand exceeds capacity and spills over onto city streets.
- Queuing buses affect air quality and generate traffic congestion.
- Operating deficit of over $100 million per year.

Major Issues at the PABT

- The structural slabs supporting bus operations will need to be replaced in 15-25 years.
- Addressing structural issues requires replacing the terminal.
- Terminal was not built for taller, longer, heavier modern buses.
- Inadequate bus parking, staging, circulation space.



Early Actions in Place

PABT $90 million Quality of Commute Improvement Program

- Improved Trip Reliability/Reduced Terminal Crowding
- Improved Communications
- Improved Terminal Conditions

Potential Additional Early Actions

- Build bus storage/staging options in NY and NJ
- Develop satellite terminal for intercity bus operations
- Implement technology to improve fleet management
- Explore strategies to manage near term growth at the existing terminal:
  - Route consolidation
  - Hub & spoke operations
  - Hudson River ferries
  - Service to other transit hubs in NY and NJ (George Washington Bridge Bus Station, Secaucus Junction, ferry terminals)
  - Gate utilization

Why not rehabilitate the existing PABT?

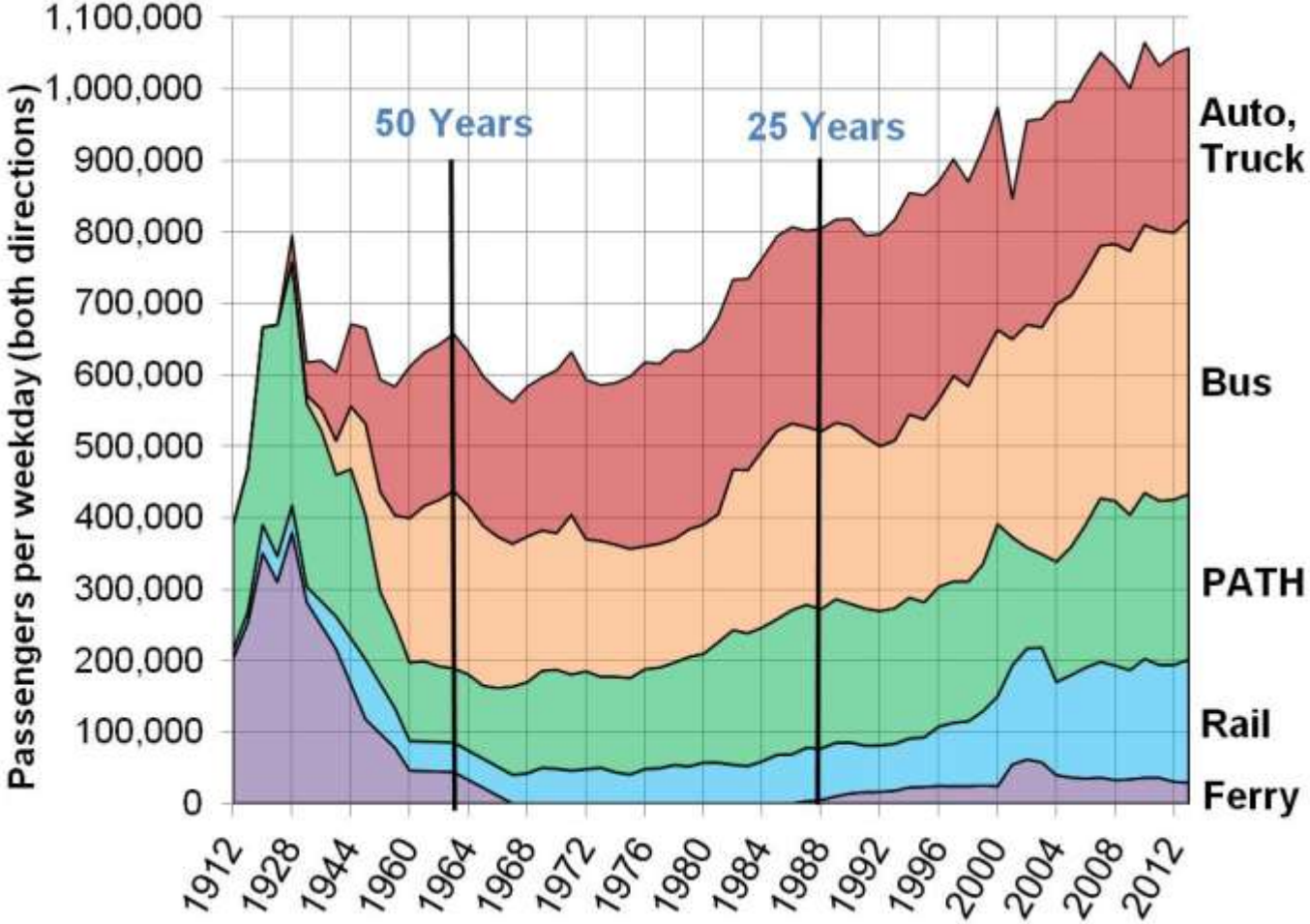
- Impractical to keep the PABT operational during a phased rehabilitation of the bus level floor slabs.
- Meeting code and accessibility requirements would reduce capacity below current levels.
- Expansion required to address lost capacity, current deficiencies and growing demand.
- Major capital investment needed over the next 25 years to keep the PABT in operation without addressing structural slabs and without expanding capacity.

Midtown Bus Master Planning Update

- Building blocks for the plan:
  - Population and employment projections
  - Travel demand forecasts in coordination with NJ Transit
  - Interviews with bus operators, bus passenger surveys
  - Requirements for bus gates, staging, parking, passenger circulation
  - Survey of West Midtown properties
- 20 initial alternatives screened down to 5 working concepts.
- Developed construction staging and cost estimates.
- Work is in progress. Additional alternatives are being analyzed and must be reviewed by stakeholders before the Port Authority and our regional partners settle on a course of action.

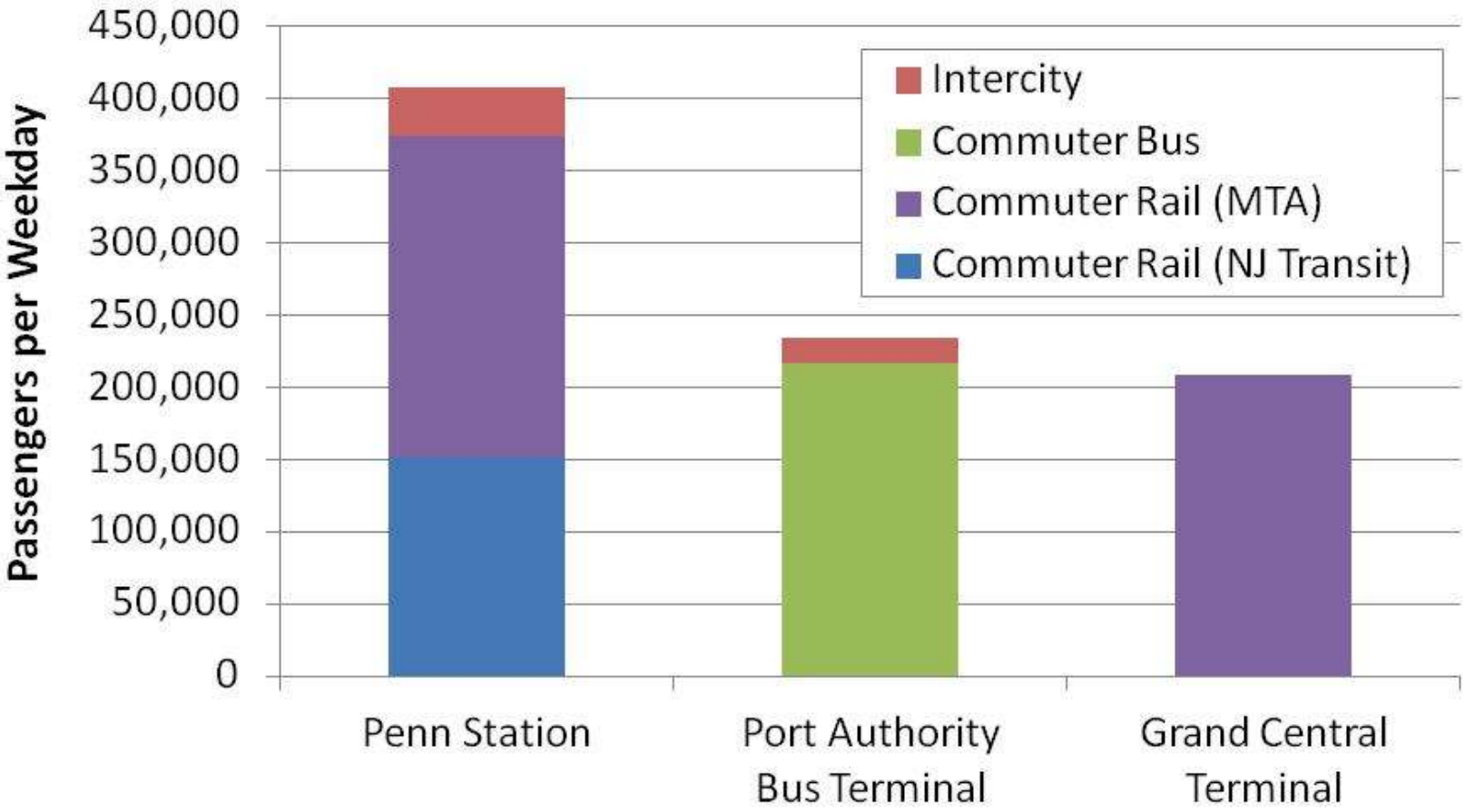
Growing Demand

Trans-Hudson Travel, Manhattan below 60th St.



Source: NYMTC Hub Bound Travel Report

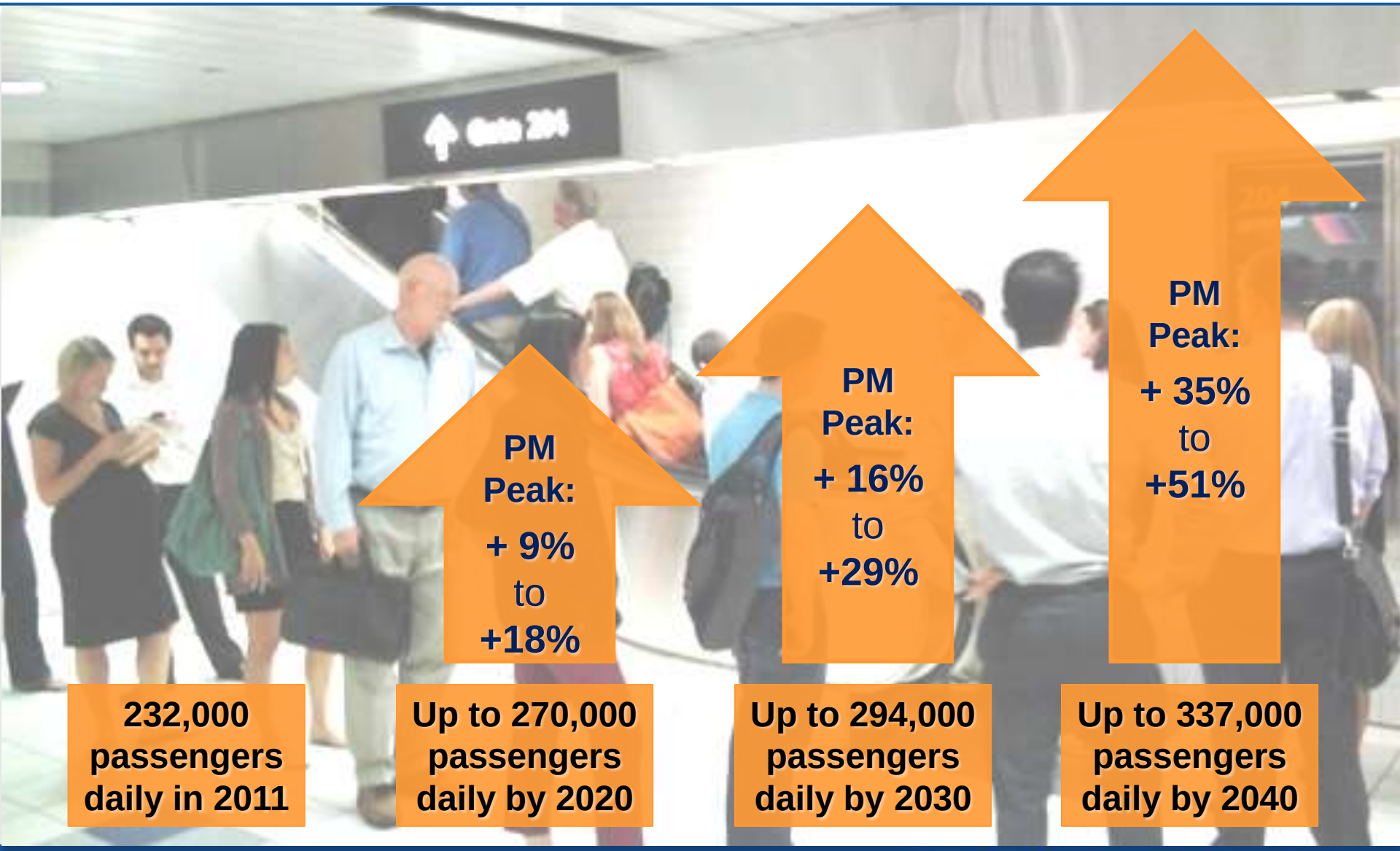
Major Manhattan Transit Terminals



Importance of the Trans-Hudson Bus System

- Over 115,000 west of Hudson residents commute via bus to jobs in Manhattan.
- They collectively earn $9.5 billion a year, supporting economic activity equivalent to 3% of NJ's economy.
- More than 8,000 NYC residents commute by bus to jobs west of the Hudson.
- Access to expanding West of Hudson workforce is critical to NYC's competitiveness as an office location.
- The PABT is a resilient regional lifeline when the rail system is disrupted.

Forecasted PABT Passenger Growth 2011-2040



Magnitude of New Facilities

- 2040 projections indicate up to 42,000 passengers in the PM peak hour, up from 28,000 today. The facility must handle the seating capacity of the Mets' Citi Field ballpark each peak hour.
- 1,000 27-ton buses per hour in the PM peak, up from 770 today. Placed end to end, these buses would stretch over 8½ miles.
- Accommodating these buses requires one of the largest, most complex transit terminals in the country – 5 levels of terminal, ramps, staging, and parking covering 3½ city blocks and bridging streets and active tunnel portals.

Possible Project Timeline and Staging Approach

Planning, Design, Environ-mental Review, Permitting, Financing

(6 years)

→

Build bus annex west of the PABT with temporary terminal functionality

(4 years)

→

Relocate bus operations on temporary basis to bus annex, the GWB Bus Station, and other locations

→

Demolish PABT and build replacement

(4 years)

→

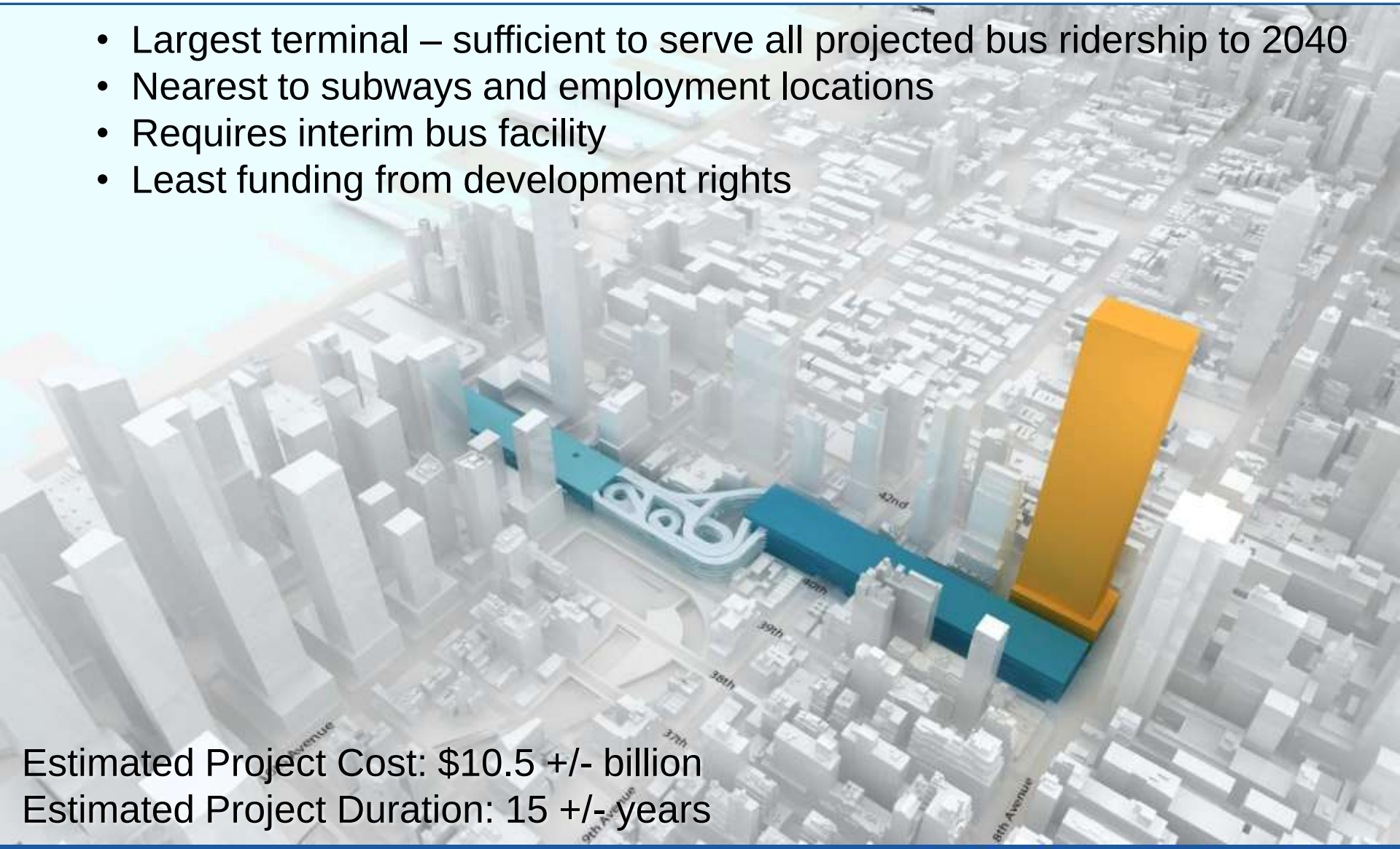
Open new terminal and convert bus annex to staging/ storage use

(1 year)

15 years to design, approve, finance, and build

Concept Review: *Concept 1*

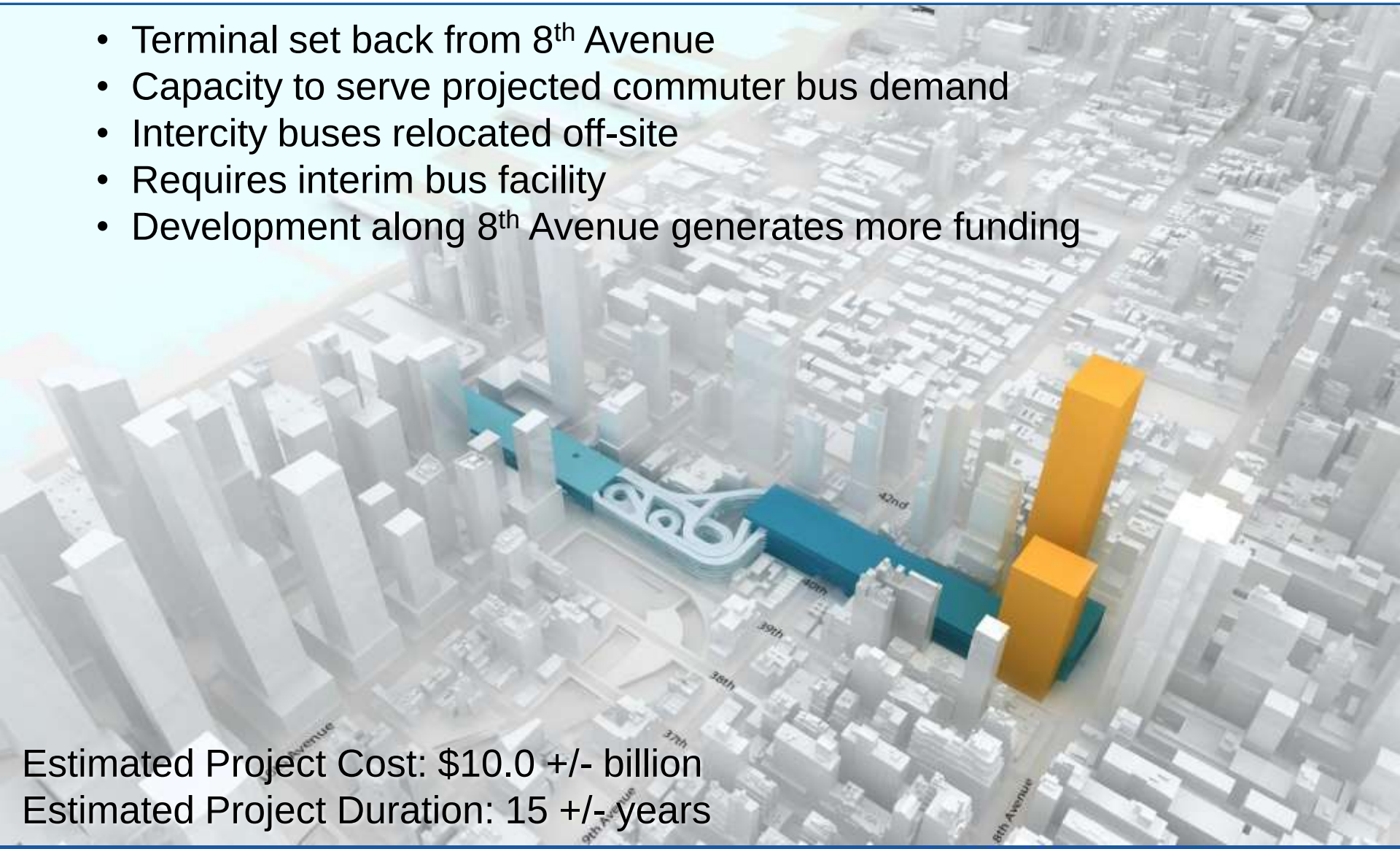
- Largest terminal – sufficient to serve all projected bus ridership to 2040
- Nearest to subways and employment locations
- Requires interim bus facility
- Least funding from development rights



Estimated Project Cost: $10.5 +/- billion
Estimated Project Duration: 15 +/- years

Concept Review: *Concept 2*

- Terminal set back from 8th Avenue
- Capacity to serve projected commuter bus demand
- Intercity buses relocated off-site
- Requires interim bus facility
- Development along 8th Avenue generates more funding



Estimated Project Cost: $10.0 +/- billion
Estimated Project Duration: 15 +/- years

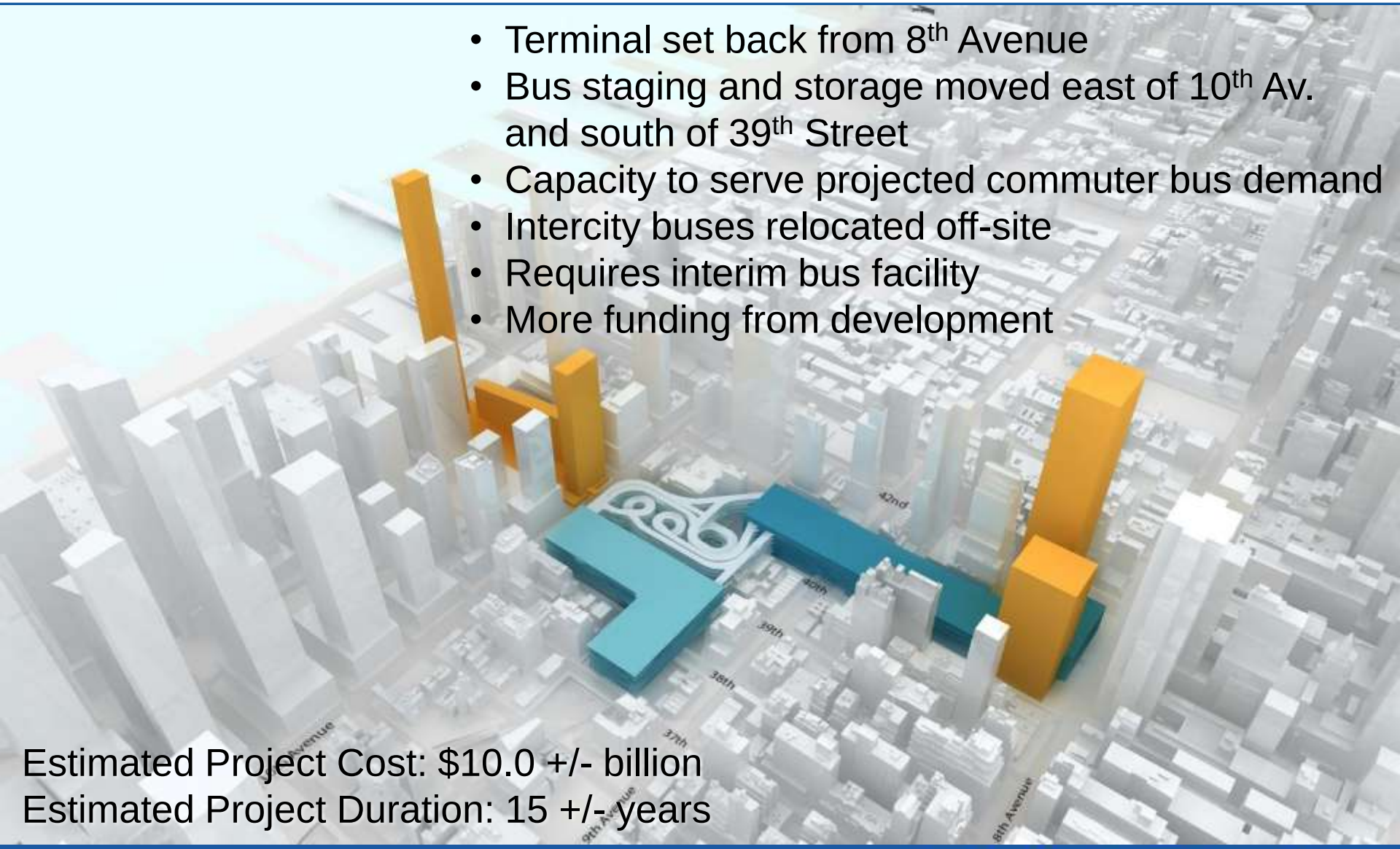
Concept Review: *Concept 3*

- Terminal moved to west of 9th Avenue – longer connection to subways
- Capacity to serve projected commuter bus demand
- Intercity buses relocated off-site
- Does not require interim bus facility
- More funding from development

Estimated Project Cost: $9.0 +/- billion
Estimated Project Duration: 13 +/- years

Concept Review: *Concept 4*

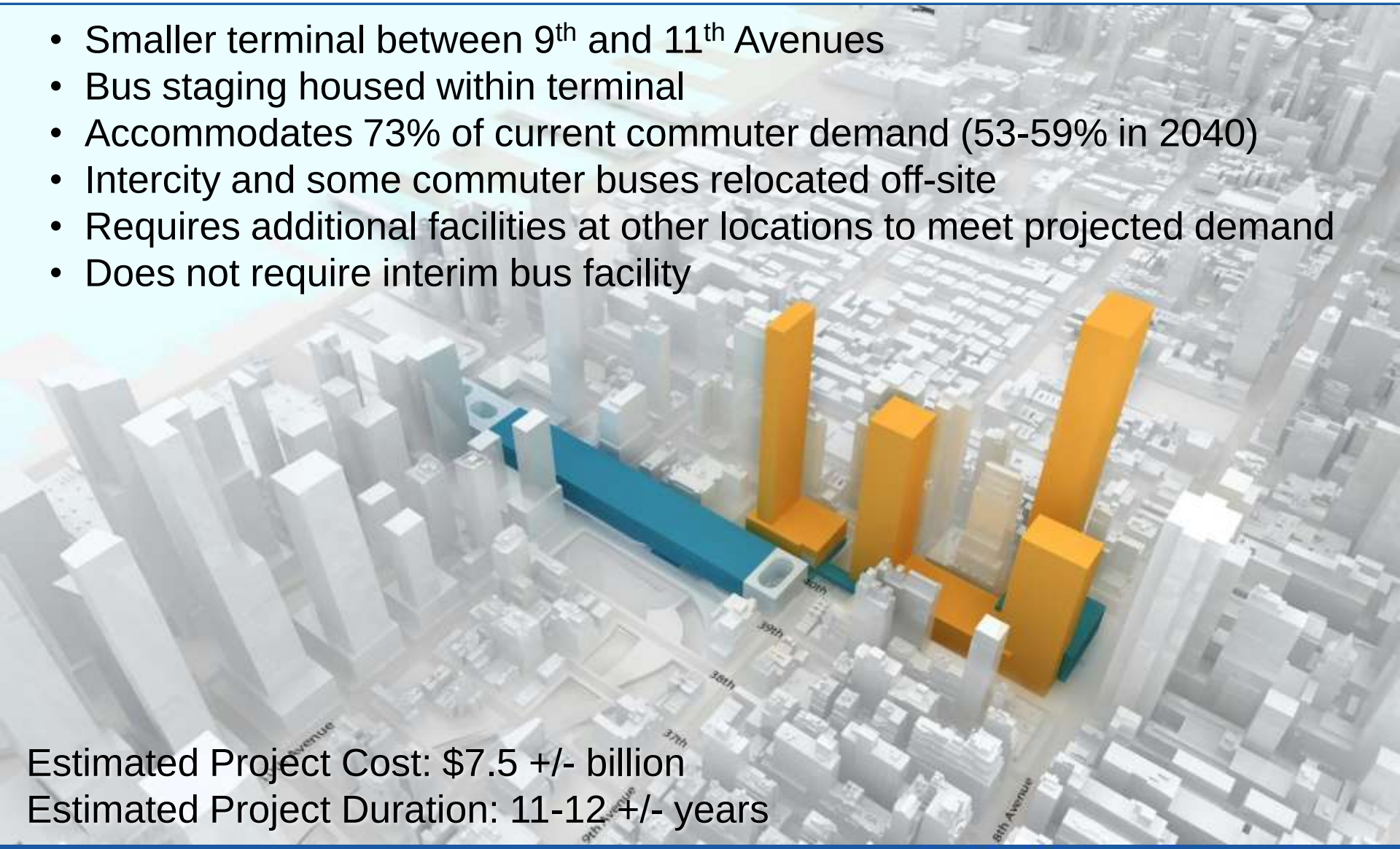
- Terminal set back from 8th Avenue
- Bus staging and storage moved east of 10th Av. and south of 39th Street
- Capacity to serve projected commuter bus demand
- Intercity buses relocated off-site
- Requires interim bus facility
- More funding from development



Estimated Project Cost: $10.0 +/- billion
Estimated Project Duration: 15 +/- years

Concept Review: *Concept 5*

- Smaller terminal between 9th and 11th Avenues
- Bus staging housed within terminal
- Accommodates 73% of current commuter demand (53-59% in 2040)
- Intercity and some commuter buses relocated off-site
- Requires additional facilities at other locations to meet projected demand
- Does not require interim bus facility



Estimated Project Cost: $7.5 +/- billion
Estimated Project Duration: 11-12 +/- years

Concept Summary

	Concept 1	Concept 2	Concept 3	Concept 4	Concept 5
Terminal Location and Commute Quality	✓✓✓	✓✓	✓	✓✓	✓
On-site Intercity	Yes	No	No	No	No
Development Opportunities	✓	✓✓	✓✓✓	✓✓✓	✓✓✓
Estimated Total Project Cost	$10.5 billion	$10.0 billion	$9.0 billion	$10.0 billion	$7.5 billion
Meets Commuter Passenger Demand	Yes	Yes	Yes	Yes	No
Project Duration (Including 6 year pre-construction period)	15 years	15 years	13 years	15 years	11-12 years

Total Project Costs – Order of Magnitude

Bus Facilities (3.7 M sf @ $1,230/sf pre-escalation)		
New Terminal (2.1 M sf)	$2.8 B	
Parking and Staging Facility and Ramps (1.6 M sf)	$1.7 B	
Escalation	$1.4 B	
Hard Construction Cost		**$5.9 B**
Planning, Engineering, Legal, Professional	$1.3 B	
Financing and Insurance	$1.4 B	
Soft Costs		**$2.7 B**
Program Contingency		**$1.9 B**
Total Project Cost		**$10.5 B**

Construction costs estimated by KPF/PB Joint Venture, Skanska and VJ Associates

Cost Estimation

Construction cost estimates account for:

- Unusually heavy gauge of construction
- Phasing plans that keep bus terminal operational at all stages of construction
- Restricted work schedules to maintain Lincoln Tunnel access and egress
- Site limitations
- Escalation to the mid-year of construction
- $500 million for satellite intercity facility (Concepts 2-5 only)

Soft costs, program contingency, and other factors consistent with Port Authority experience and industry standards.

Public Transportation Projects of Similar Magnitude

Project		Cost Estimate (Current)	Federal Share	Construction Timeline
Current Regional Projects	WTC Transportation Hub	~$4 billion	$2.9 billion	2006 - 2015
	East Side (Rail) Access	$10.2 billion	$2.6 billion	2007 - 2022
	Second Avenue Subway (Phase 1)	$4.5 billion	$1.3 billion	2007 - 2016
Proposed Regional Projects	Second Avenue Subway (Phase 2)	~ $4.5 billion	TBD	TBD
	Amtrak's Gateway Project	~ $15 billion	TBD	TBD
Current National Projects	Washington Metro Dulles Corridor	$5.7 billion	$900 million (Phase 1) $1.9 billion (TIFIA, Phase 2)	2010 - 2018
	LA Purple Line Subway Extension (Phase 1&2)	$5.4 billion	$1.3 billion (Phase 1)	2015 - 2023
	Honolulu Transit Corridor	$5.1 billion	$1.6 billion	2012 - 2019

Sources: FTA, USDOT, and other government websites

Funding

- PABT replacement program requires a funding strategy that addresses capital costs and operating loses.
- Funding of new bus facilities requires participation from the Port Authority; local, regional and federal government; and the private sector.
- Decisions about bus facility investments must be part of a comprehensive, multi-modal interstate network strategy.

Potential Funding Sources

- Port Authority Capital Plan
  - Monetizing Port Authority Development Rights
- Federal Grants and Loans
- Participation by Other Agencies and Localities
- Private Investment

Next Steps

Constructing a new bus terminal requires broad regional support and robust federal, state, and local participation.

In the next phase, the Port Authority will:

- Discuss alternatives with the community and commuters.
- Engage key stakeholders.
- Study additional alternatives in context of the full range of needs on the multimodal trans-Hudson network.
- Develop a funding strategy for capital and operating costs.