



PENN STATION TRANSFORMATION

New York Penn Station Working Advisory Group (SWAG)

Tuesday, October 29, 2024

Safety and Security Moment



Emergency Preparedness

Our physical address is 105 E 17th Street.

Who will call 911, and who is their backup?

Who is CPR/AED qualified?

Know the location of emergency equipment.



Evacuation

Communicate the need to evacuate.

Follow the Facility Emergency Plan (FEP).

Know your evacuation plan/ route & muster point.

Assist those who may need help evacuating.

Wait for permission to re-enter the facility.



Safety Reporting

Proactively identify & report unsafe conditions or behaviors.

Use AVSRS through the Safety page on All Aboard or download the Enablon Go mobile app.

Report all safety concerns.



Health and Wellbeing

Take healthy actions:

Physical Activity

Healthy Nutrition

Adequate Sleep

Mental Well-being

Stay up to date with preventive services.

Take time to refresh & recharge.



Security

If You See Something, Say Something®. Call 800-331-0008 / text 27311.

Active Shooter: Run, Hide, Fight.

Always be aware of surroundings.

Display and verify proper ID on Amtrak property.



Cybersecurity

Pay attention to phishing traps in emails.

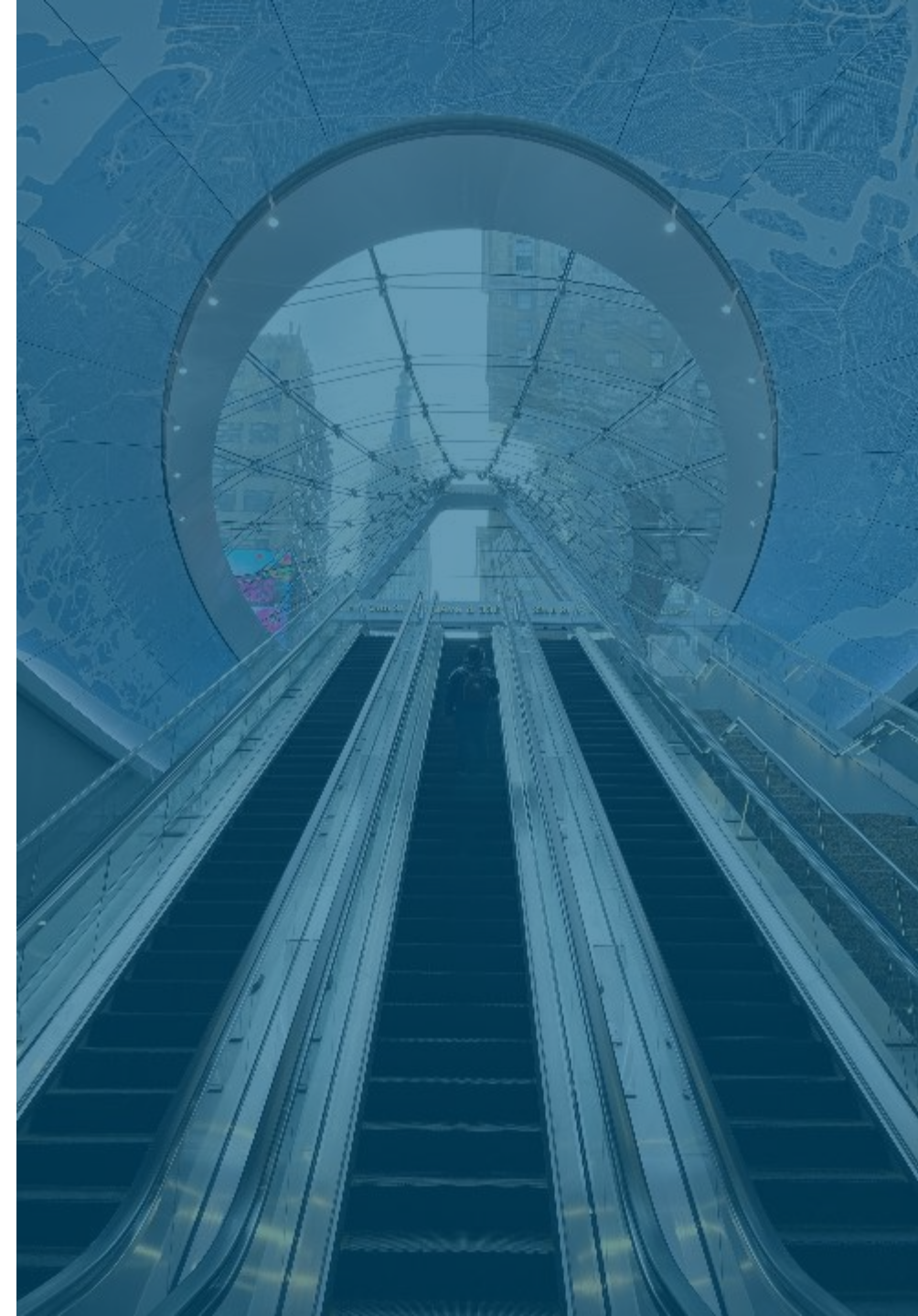
Don't click on links or attachments from unknown sources.

Report all suspicious email and cyber incidents to the Amtrak Service Desk:

800-772-4357
AmtrakServiceDesk@amtrak.com

Agenda

- **Meeting Goals**
- **Doubling Trans-Hudson Train Capacity at Penn Station**
Discussion Continued
- **Penn Capacity Expansion Introduction & Next Steps**
- **Penn Reconstruction Introduction & Next Steps**
- **Additional Discussion**



Meeting Goals

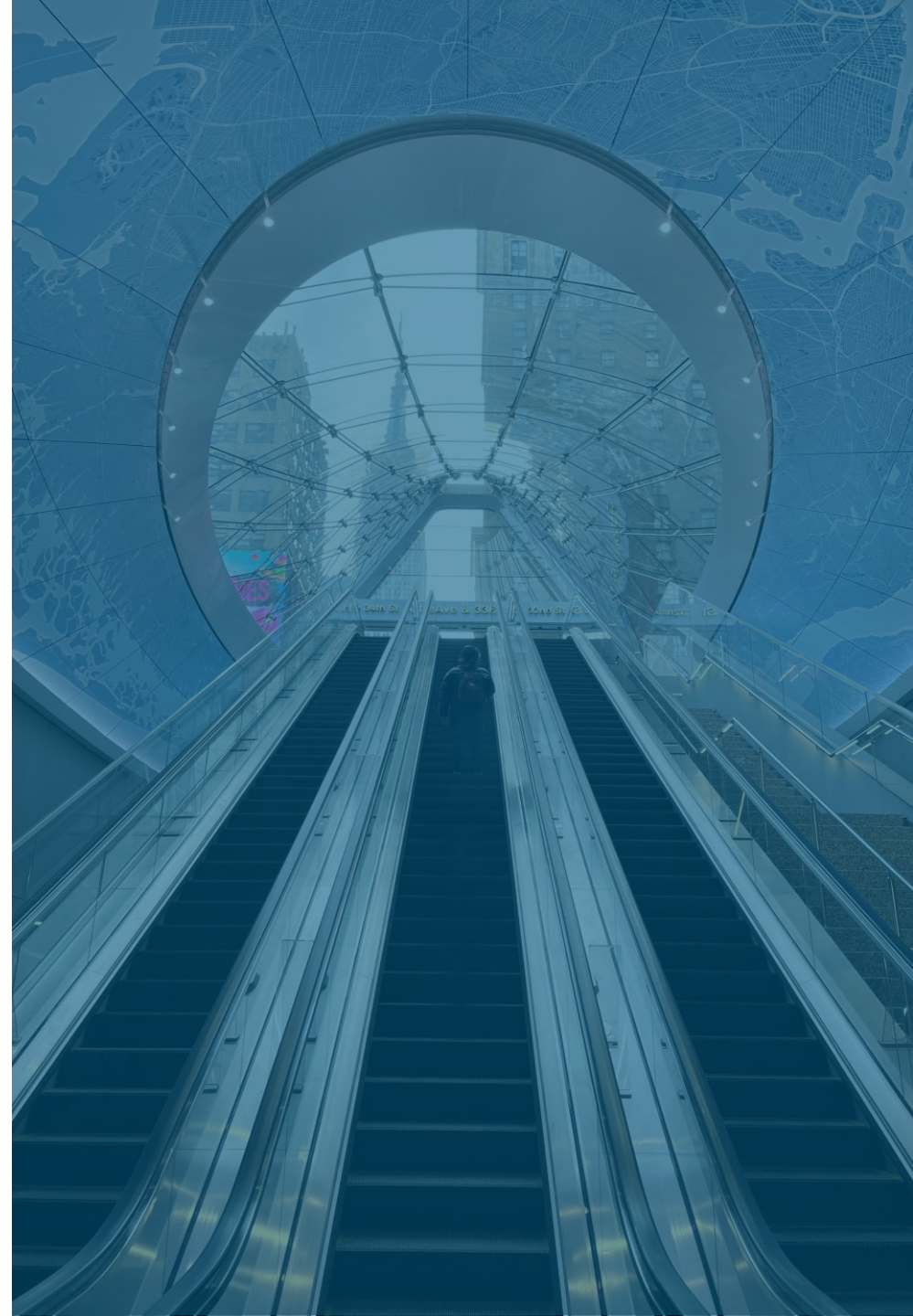
Answer questions about the feasibility study
“Doubling Trans-Hudson Train Capacity at Penn Station”
expressed during last meeting, including:

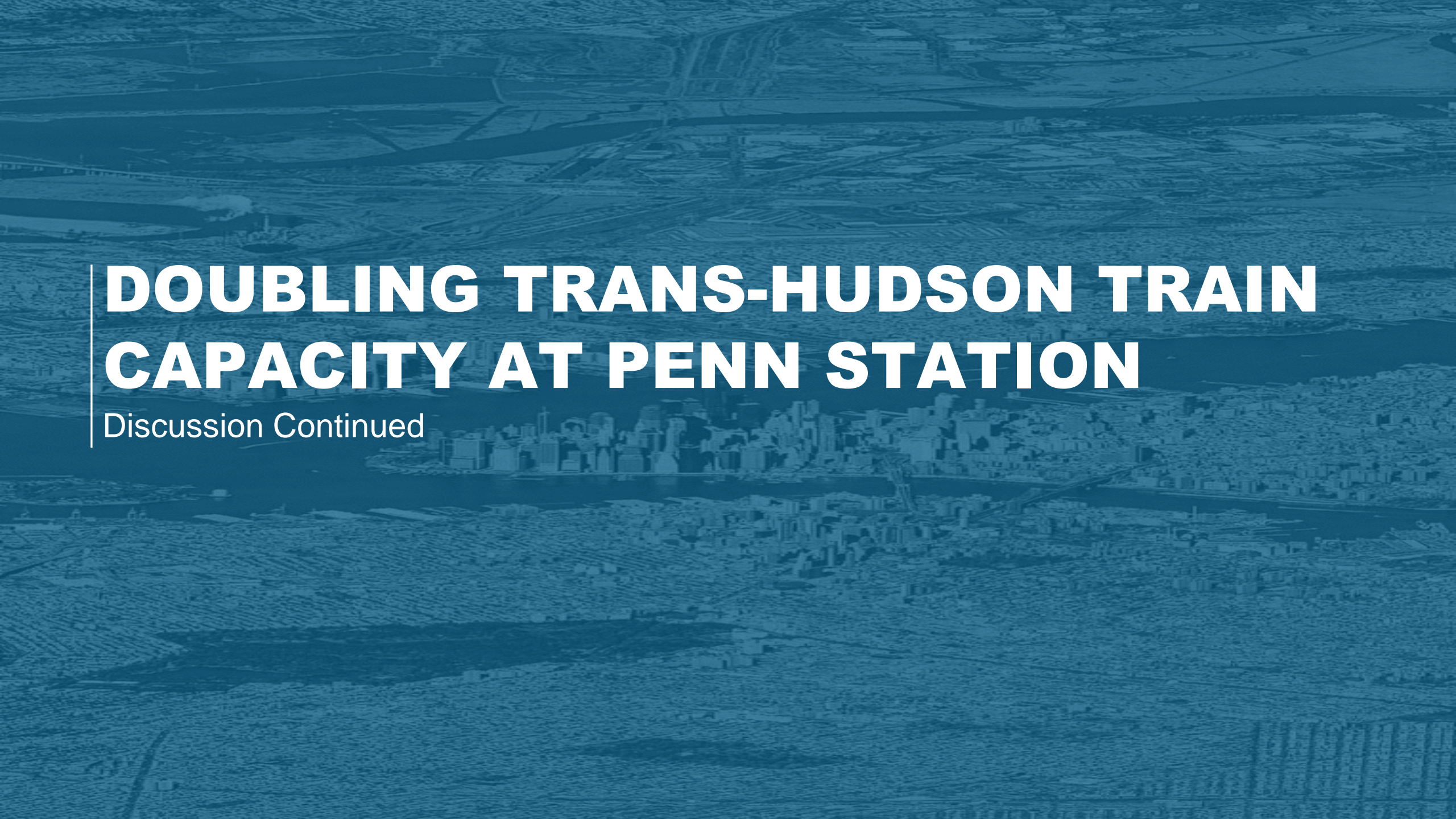
- 48 Trains per Hour (TPH) Goal
- Dwell Times
- Through-Running & Regional Metro

Introduce proposed Penn Capacity Expansion project
purpose, goals, and preliminary alternatives

Introduce proposed Penn Reconstruction project purpose
and goals

Preview next steps for both Penn Projects



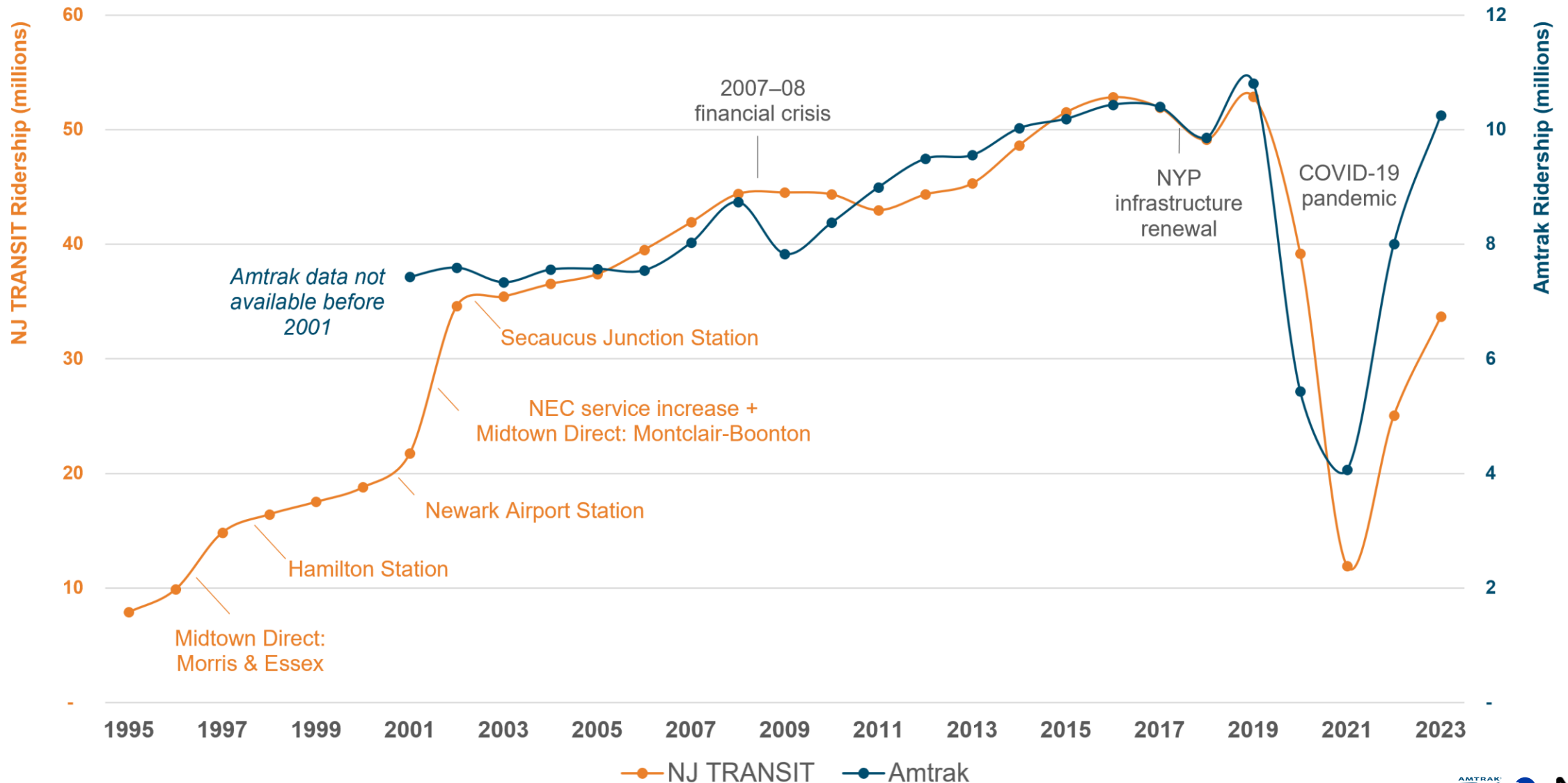
An aerial photograph of New York City, including the Hudson River, Manhattan skyline, and surrounding areas, is shown with a semi-transparent blue overlay. The text is positioned on the left side of the image.

DOUBLING TRANS-HUDSON TRAIN CAPACITY AT PENN STATION

Discussion Continued

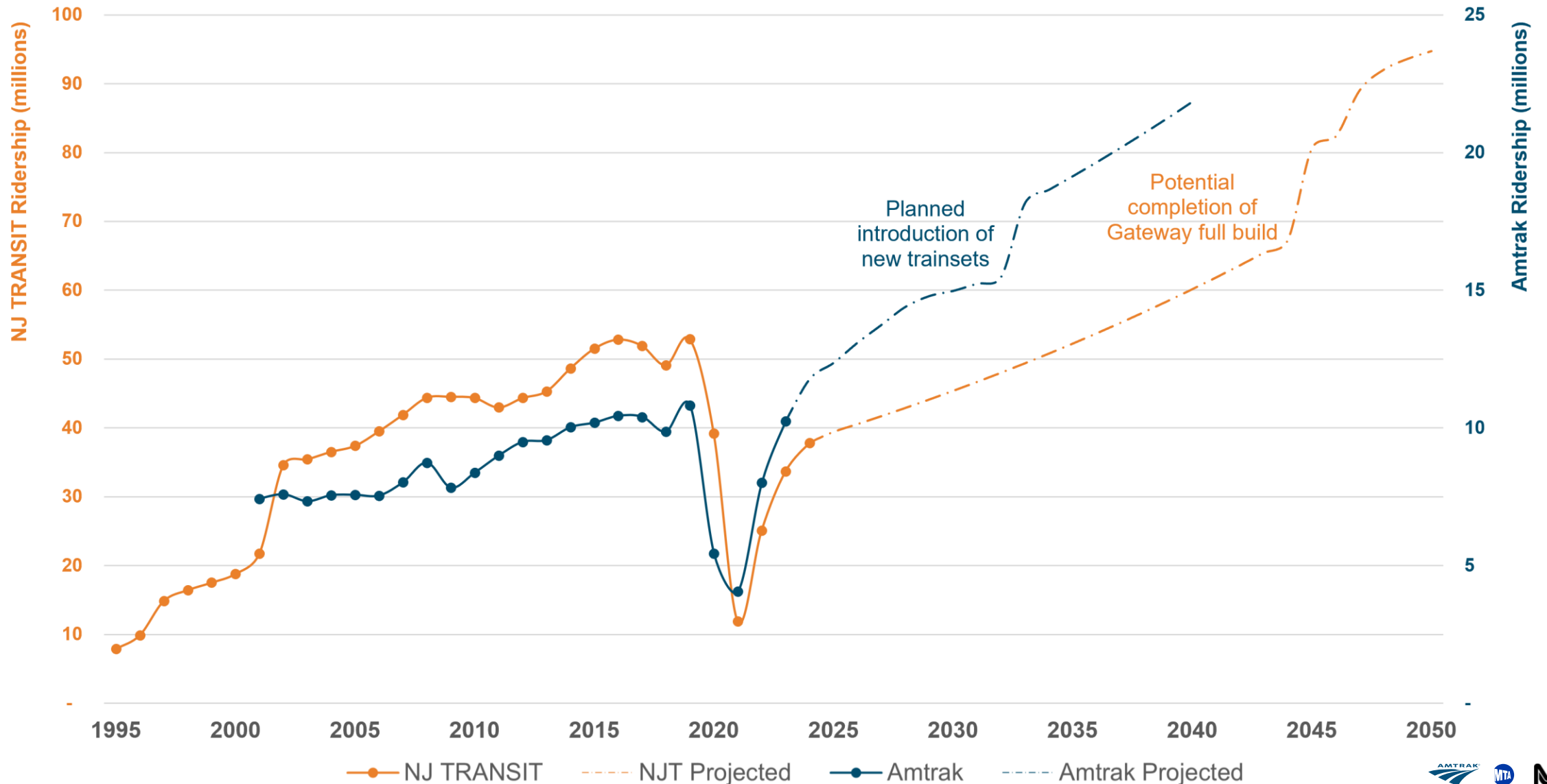
Why at least 48 TPH: Trans-Hudson Historical Ridership

New York Penn Station – Total Annual Ridership (by agency fiscal year)



Why at least 48 TPH: Trans-Hudson Projected Ridership

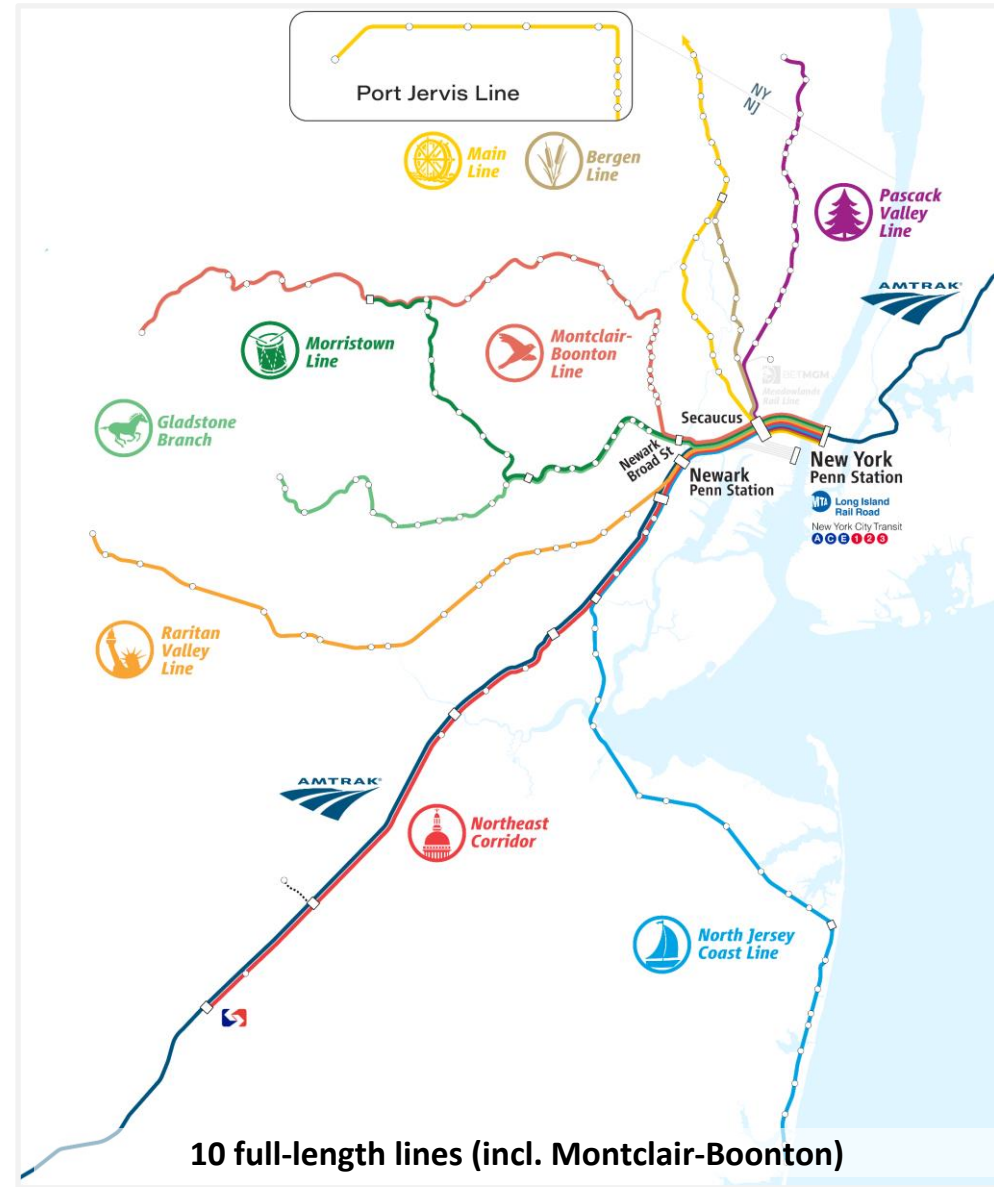
New York Penn Station – Total Annual Ridership (by agency fiscal year)



Why at least 48 TPH: Policy Goal of Weekday Peak One-Seat Ride



Existing



Post-Gateway Program (2045)

Why at least 48 TPH: Ability to Facilitate Meaningful Connectivity

Draft Service Plan

Operator	Line / Service	Existing TPH	Post-Gateway TPH	Absolute Change
Amtrak	Acela	1	2	+1
	Northeast Regional	2	2	No Change
	Keystone	1	1	No Change
	State-Supported Routes	0	1	+1
	Long Distance Routes	0	0	No Change
NJ TRANSIT	Northeast Corridor (NEC)	9	12	+3
	North Jersey Coast Line (NJCL)	4	6	+2
	Morris & Essex Line (M&E)	4	6	+2
	Gladstone Line (GLD)	1	1	No Change
	Montclair-Boonton Line (MoBo)	2	4	+2
	Raritan Valley Line (RVL)	0	4	+4
	Main Line (ML)	0	3	+3
	Bergen County Line (BCL)	0	2	+2
	Port Jervis Line (PJL) (MTA-supported)	0	2	+2
	Pascack Valley Line (PVL) (MTA-supported)	0	2	+2
TOTAL Trans-Hudson: Weekday Peak Direction		24	48	+24

Amtrak's Empire Service is not shown in the table, since it is not a trans-Hudson service
Peak direction = NYP Inbound during Weekday AM; NYP Outbound during Weekday PM

Why at least 48 TPH: Advancing Additional Policy Goals

Accommodate Empire Service
(not using Trans-Hudson
tunnels) **and its growth plans**



**Maximize return on public
investment** in new
Hudson River Tunnel



Shift as many travelers as
possible from **cars to trains**



Why at least 48 TPH: “Demand” Exceeds Tunnel “Supply”

48 TPH is expected capacity of Trans-Hudson tunnels – below what is needed to accommodate future projections & policy goals

Projected “demand” amounts to 52–56 TPH...

52-56 TPH

- **NEC Future (2013-2014): 52 TPH for 2040** (10 Intercity TPH + 42 Commuter TPH)
- **Gateway Service Planning (2019-2020): 56 TPH for beyond 2050** (8 Intercity TPH + 48 Commuter TPH)

4-8 fewer TPH

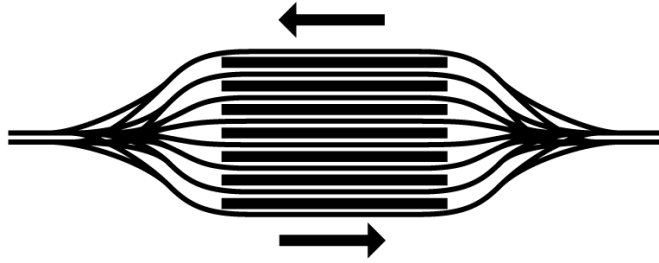
...but Trans-Hudson tunnels (existing + new) “supply” limited to 48 TPH on opening day

48 TPH

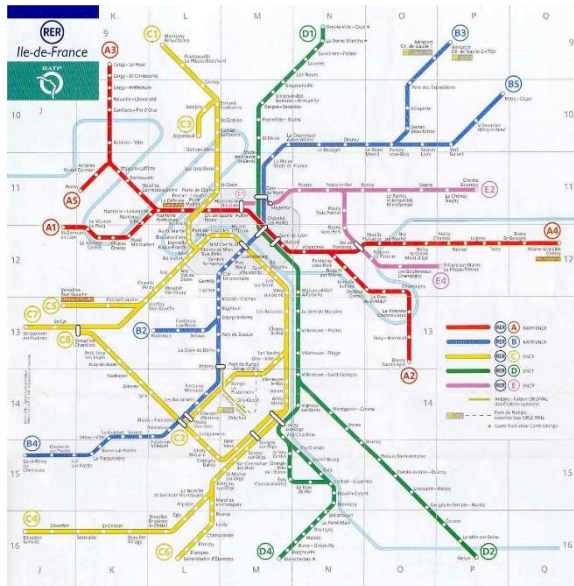
Fewer than 48 TPH significantly degrades ability to effectively serve region in future

< 48 TPH

Defining Through-Running



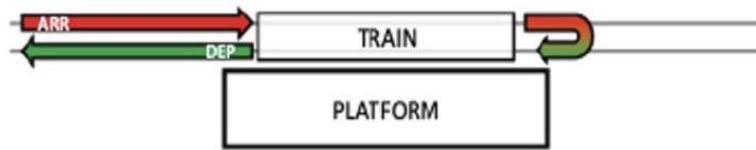
An operating regime for a station



A way to support cross-regional mobility

Turnback vs. Through-Running Service

TURNBACK SERVICE



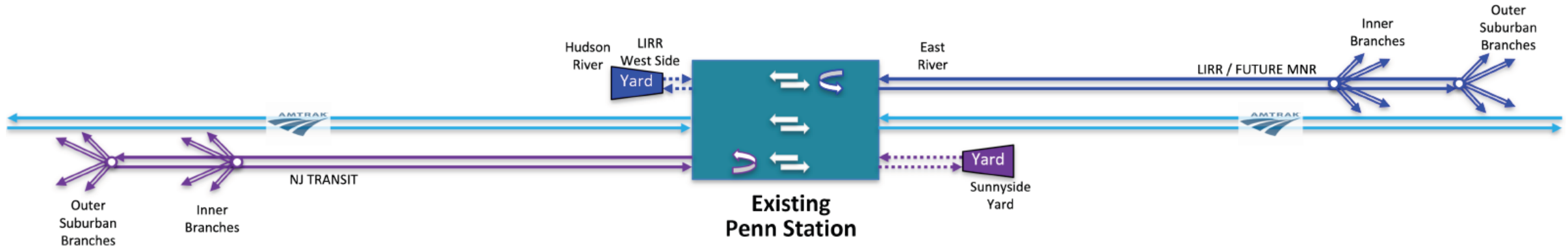
THROUGH-RUNNING SERVICE



ARR → Inbound Arriving Train
DEP → Outbound Departing Train

Regional Metro

Penn Station Today: A Hybrid Operation



Cross-Regional Rail & Regional Metro



Regional Metro vs. Suburban Service

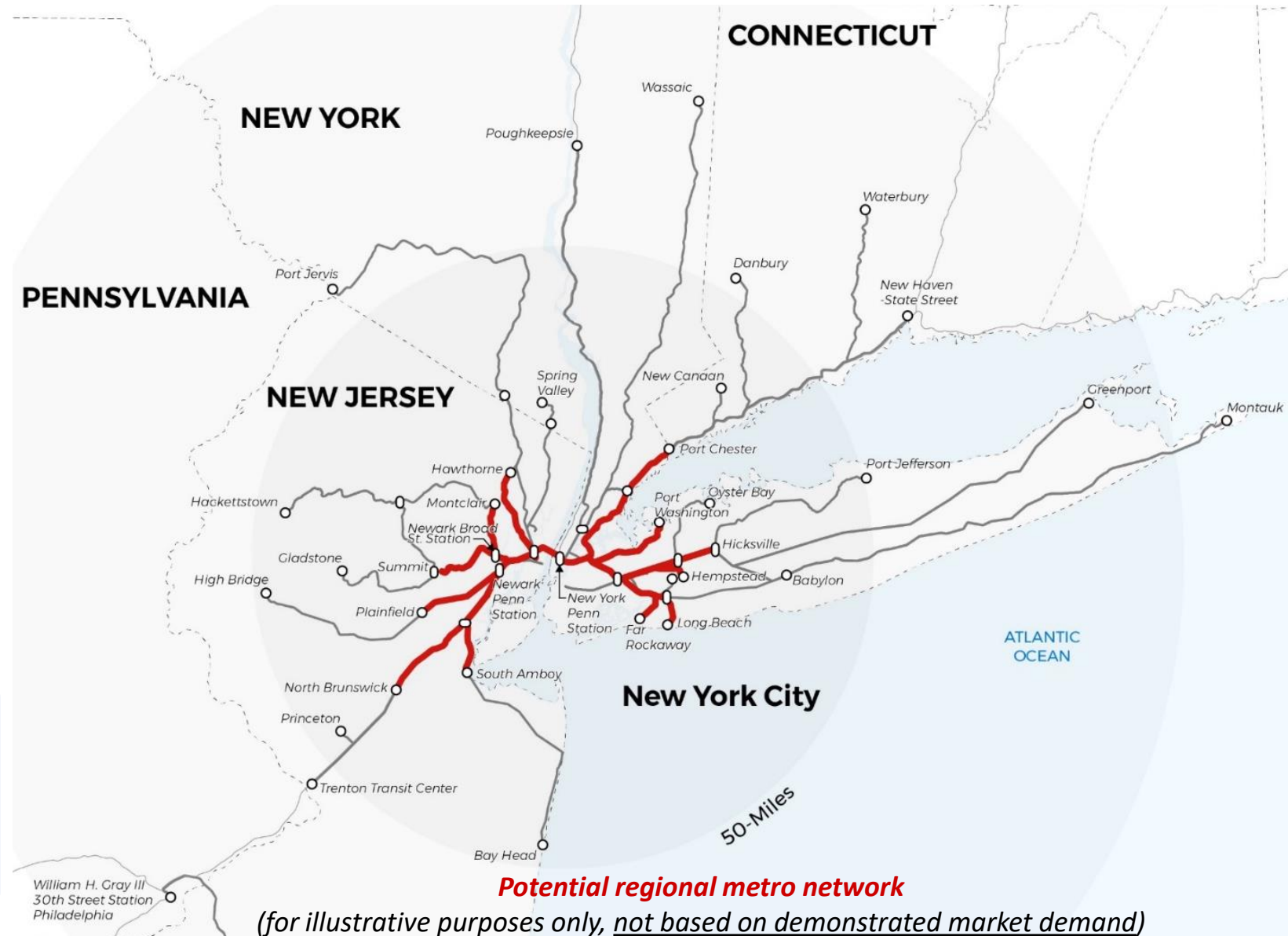
Regional Metro:

- **25 to 30 miles** from the CBD
- Single-level trainsets, minimum seats, 4 wide & evenly-spaced doors on each side for fast alighting & boarding

Suburban:

- **As far as 120 miles** from the CBD
- Single- or multi-level trainsets, maximum seats, 2 end doors on each side

It is not practical to operate a through-running Regional Metro service throughout the whole region, meaning suburban service must continue to be accommodated



Legend

- Passenger Rail Lines
- Regional Metro: potential extents
- Regional Metro: required additional track(s)
- Regional Metro: required rail bridges
- Major core stations
- Stations not requiring modifications
- Regional Metro: stations/terminals requiring modifications
- ◆ Regional Metro: required storage yards, service and inspection facilities



New York Penn Station

Additional Regional Needs

- Interoperable Rolling Stock
- Interoperable Traction Power System
- Interoperable Signaling

Through-running Regional Metro service requires outside additional investments, above and beyond the Gateway Program and supporting infrastructure projects

– it is not just a Penn Station capacity solution

Survey of International Best Practices

Through-running Regional Metro service typically does not operate within original train sheds, but instead via purpose-built station expansions (shoulder stations) adjacent to existing major stations, and separate, simpler interlockings that facilitate frequent, fast service

Feature	Paris	Munich	London	Toronto	Philadelphia*
Simplified Interlockings	✓	✓	✓		
Dedicated Shoulder Station	✓	✓	✓	✓	
Multiple Stations in the Central Business District	✓	✓	✓		✓
Transit-Style Headway-Based Service	✓	✓	✓	✓	
Supplements Traditional Suburban Service	✓	✓	✓	✓	

* Case study on following page

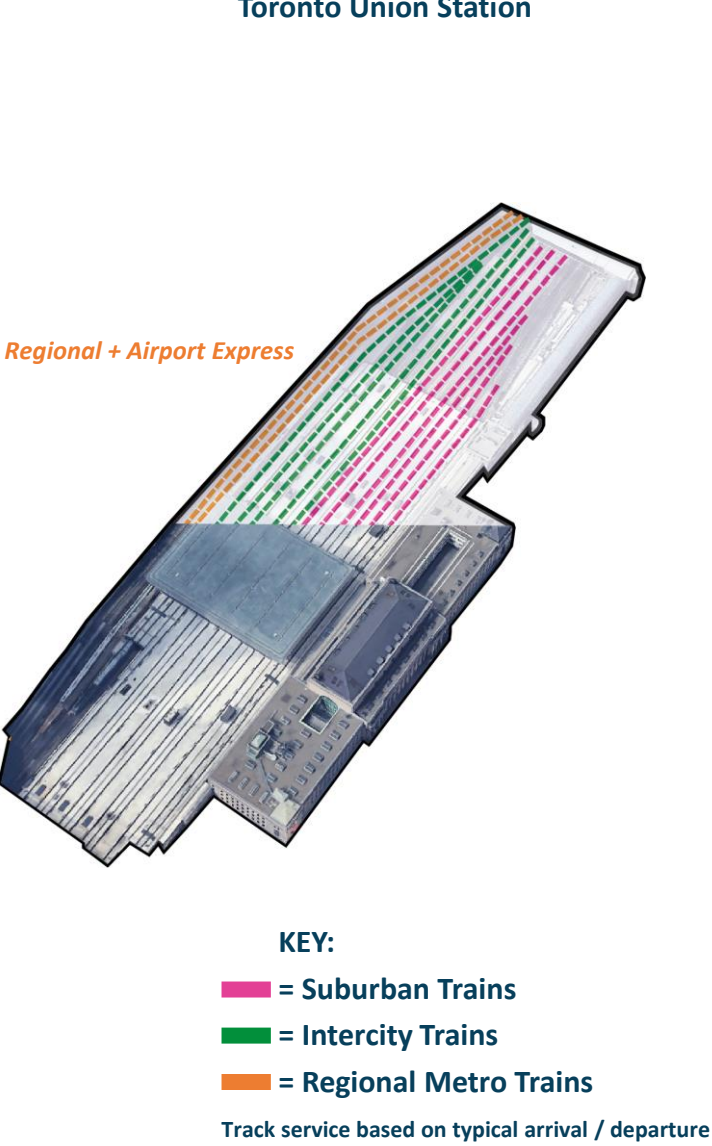
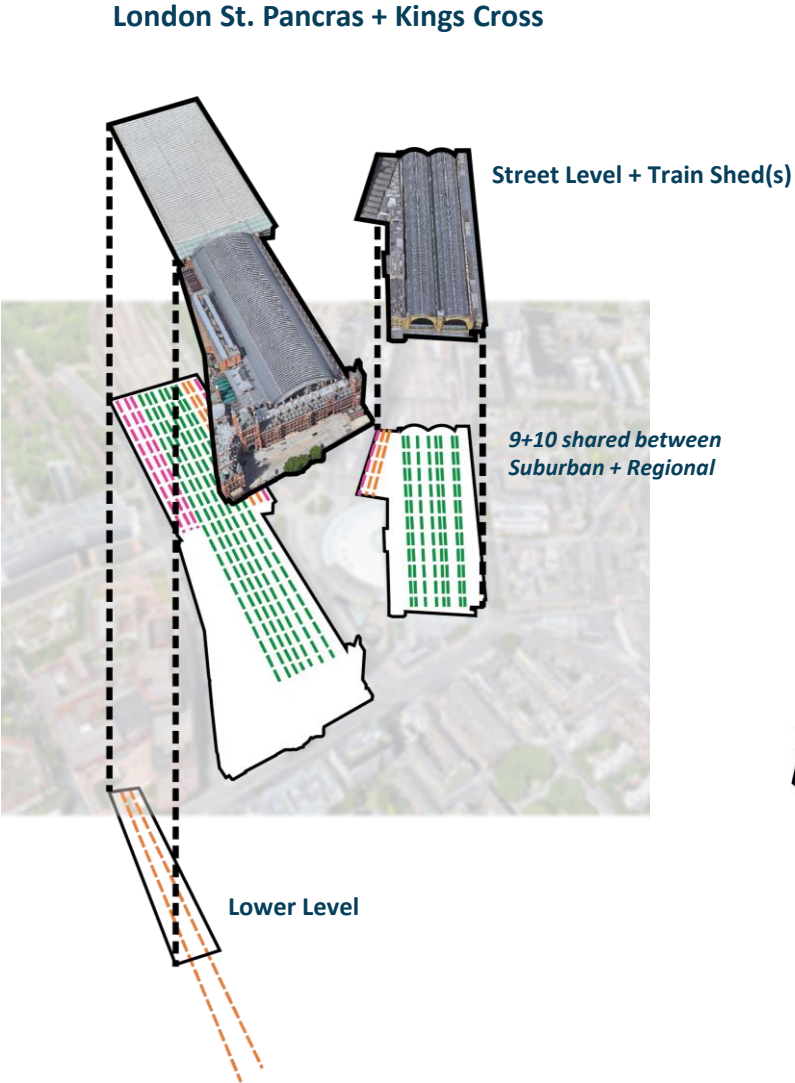
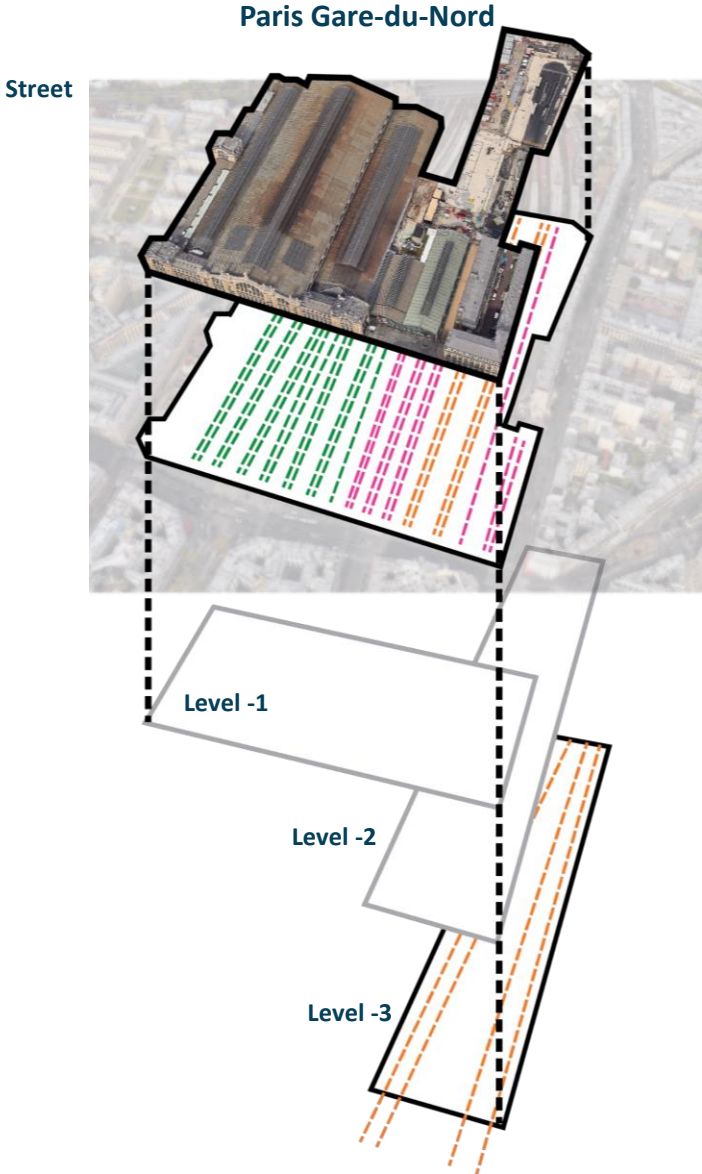
Case Study: Philadelphia Regional Rail



In 1984, Philadelphia connected two separate commuter rail systems with a new rail tunnel in Center City. However, a lack of continued investment across the network has led to limited demand, underscored by:

- ***Large capital investments not made for numerous regional interventions other than Center City tunnel***
- ***Poor market demand for reverse-peak and suburb-to-suburb travel (5% of trips were between suburbs; 95% between suburbs & five CBD stations)***
- ***High operating and maintenance costs relative to revenue in an inconsistent state funding environment***

Survey of International Best Practices



Example Factors Affecting Dwell Time

Type of Service



- Intercity/Suburban
- Regional Metro (subway-like service)

Operating Factors



- Turnback vs. through-running
- Crew changes
- Equipment inspections

Platform Width & Vertical Circulation



- Width
- Vertical Circulation Elements

Train Characteristics



- Length of each car
- Number of doors per side of car
- Width of each door
- Single-level vs. multi-level cars
- Acceleration and braking

Passenger Characteristics



- Number of passengers / loading
- Passengers with luggage
- Passengers with mobility challenges

Schedule Recovery / Buffer



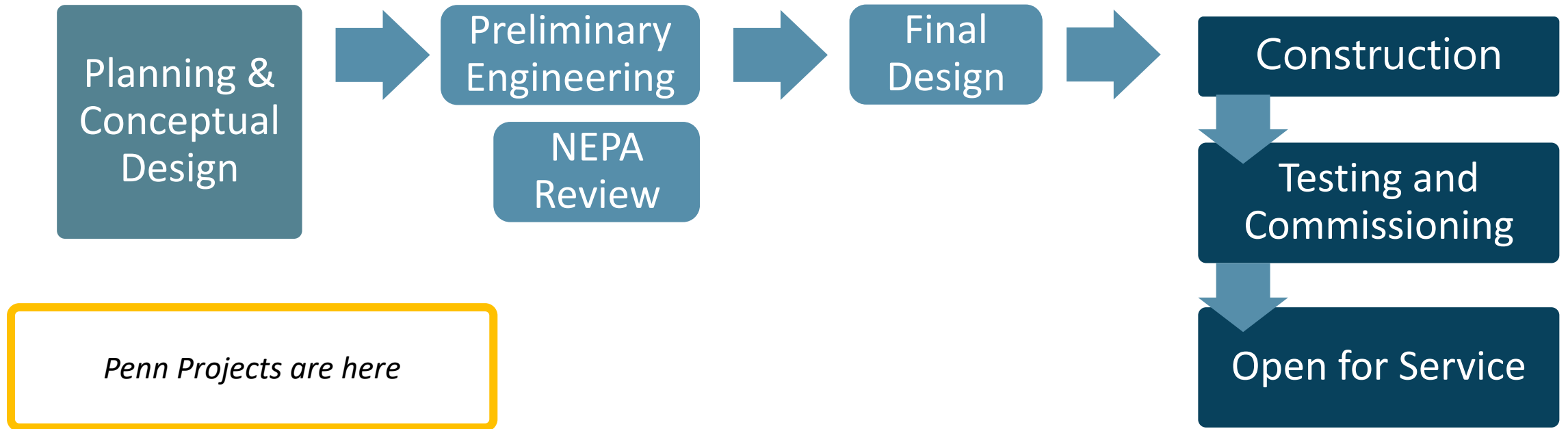
- Dependent on distance and number of stations along the route

***Multiple factors affect dwell times at New York Penn Station
Reducing dwells is a complex, multi-dimensional problem; solution is neither quick, cheap, nor easy***

PENN PROJECTS PROCESS OVERVIEW



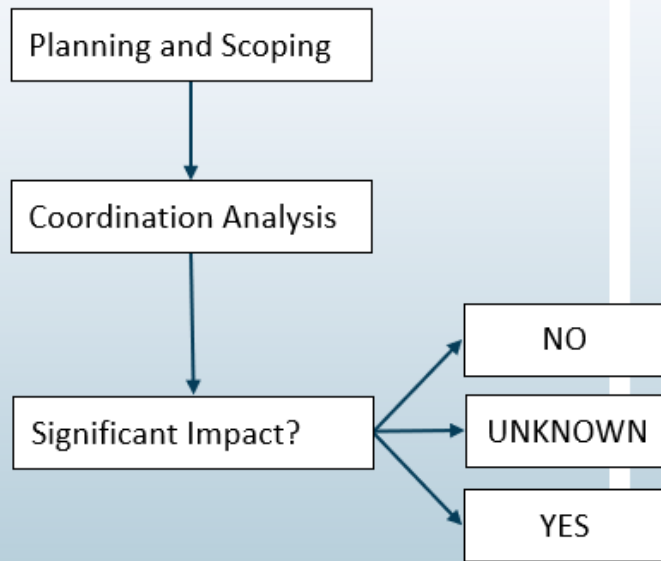
Capital Project Phases of Work



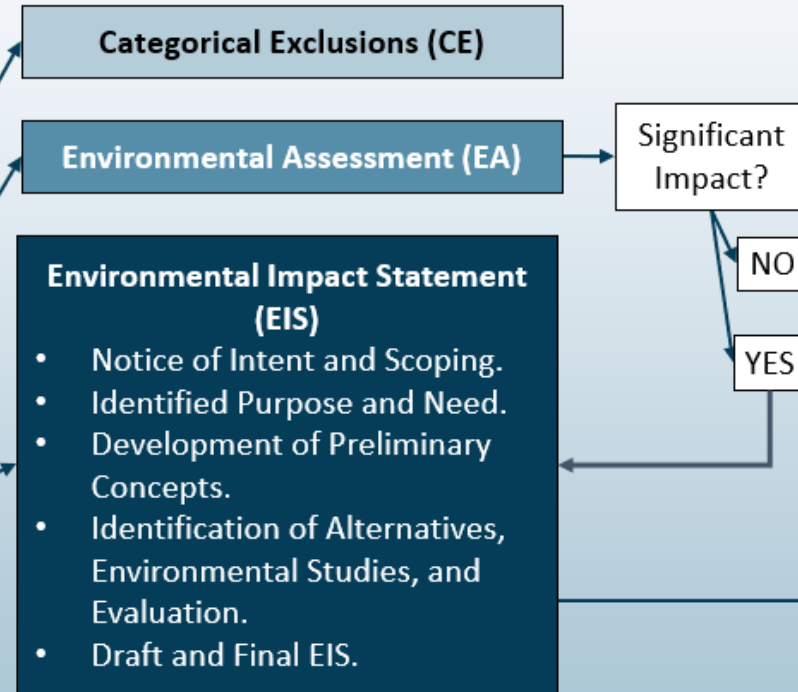
NEPA Process

National Environmental Policy Act: Requires federal agencies to consider environmental effects of proposed actions

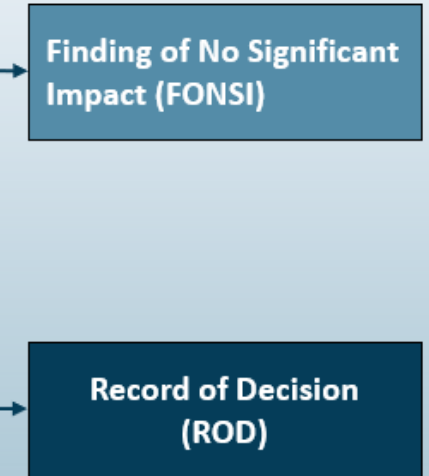
Early Phases: A project sponsor develops a project's initial plan, including a statement of purpose and need.



Class of Action: There are three types (or classes) of environmental reviews, ranging from the simplest (CE) to the most complex (EIS).



Decision: After Draft and Final EAs/EISs have been reviewed by federal agencies and receive public comment, a Decision Document is signed that allows the project to proceed.



Section 106 of the National Historic Preservation Act: Prior to issuance of a final decision, federal agencies are to consider effects on historic properties as part of the NEPA process



PENN CAPACITY EXPANSION INTRODUCTION & NEXT STEPS

Penn Capacity Expansion – Purpose of the Project

Draft for Public Comment

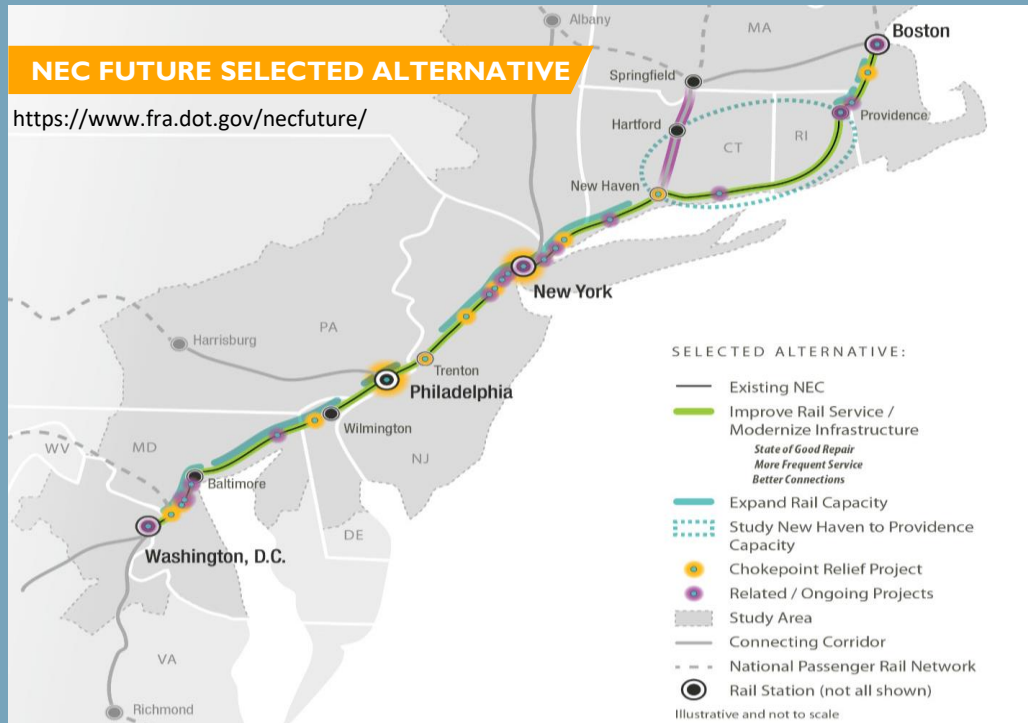
- ***Increase the rail capacity of Penn Station to accommodate a doubling or more of peak-hour passenger train service between New Jersey and New York, in support of the NEC FUTURE Program and Gateway Program.***
- ***Support the full 2045 service levels of the Gateway Program, the provision of one-seat ride services from all 10 NJ TRANSIT rail lines that connect into the Northeast Corridor, and a substantial expansion of intercity rail service.***
- ***Improve rail reliability, connectivity, operational flexibility, and passenger movement, and encourage economic growth.***



NEC FUTURE & Gateway Program

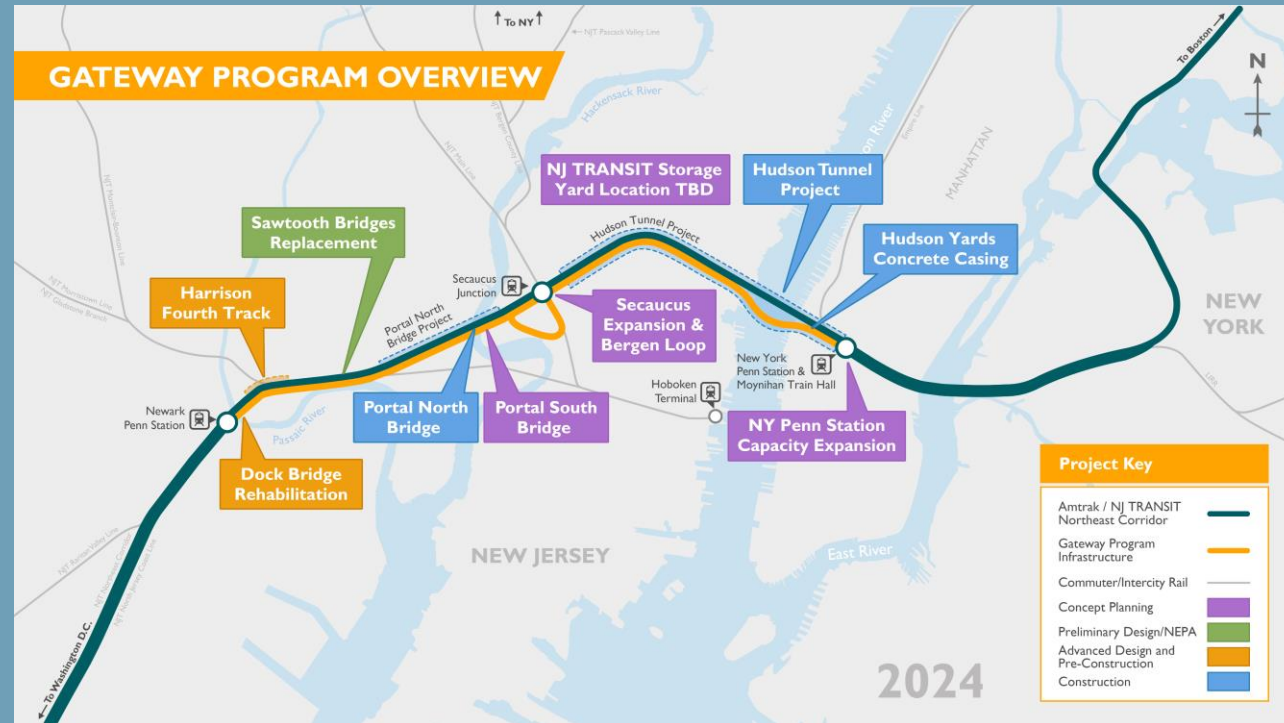
NEC FUTURE SELECTED ALTERNATIVE

<https://www.fra.dot.gov/necfuture/>



FRA's long-term vision to grow and improve rail service, modernize infrastructure, and expand rail capacity on the NEC

GATEWAY PROGRAM OVERVIEW



A series of rail infrastructure projects that will improve the most congested 10-mile section of the NEC between Newark, NJ and NYC

Penn Capacity Expansion Goals

Draft for Public Comment

Increase rail capacity

to accommodate future demand, meet policy goals, and increase reliability

Create a unified customer experience

within a fully integrated Penn Station complex

Develop a stronger connection

between Penn Station and the surrounding neighborhood

Minimize impacts

on the human and natural environment

Support local and regional policy priorities

across communities served by Penn Station

Optimize project delivery

by minimizing construction impacts to customers, construction duration, and project costs

The full list of drafted project goals and objectives will be included in the draft purpose and need document, which will be available on the project website: <https://pennstationcomplex.info/>



Preliminary illustrative image

Explaining an Alternatives Evaluation Process

Considers a wide range of solutions
to meet the purpose and need of the project

Solicits public input
and ensures all practical solutions are considered

Evaluates alternatives
for feasibility, ability to meet the purpose and need, and against evaluation criteria based on the project's goals and objectives

Identifies reasonable and feasible alternatives
for detailed study in the EIS



Draft Preliminary Alternative Concepts

For Public Comment

North

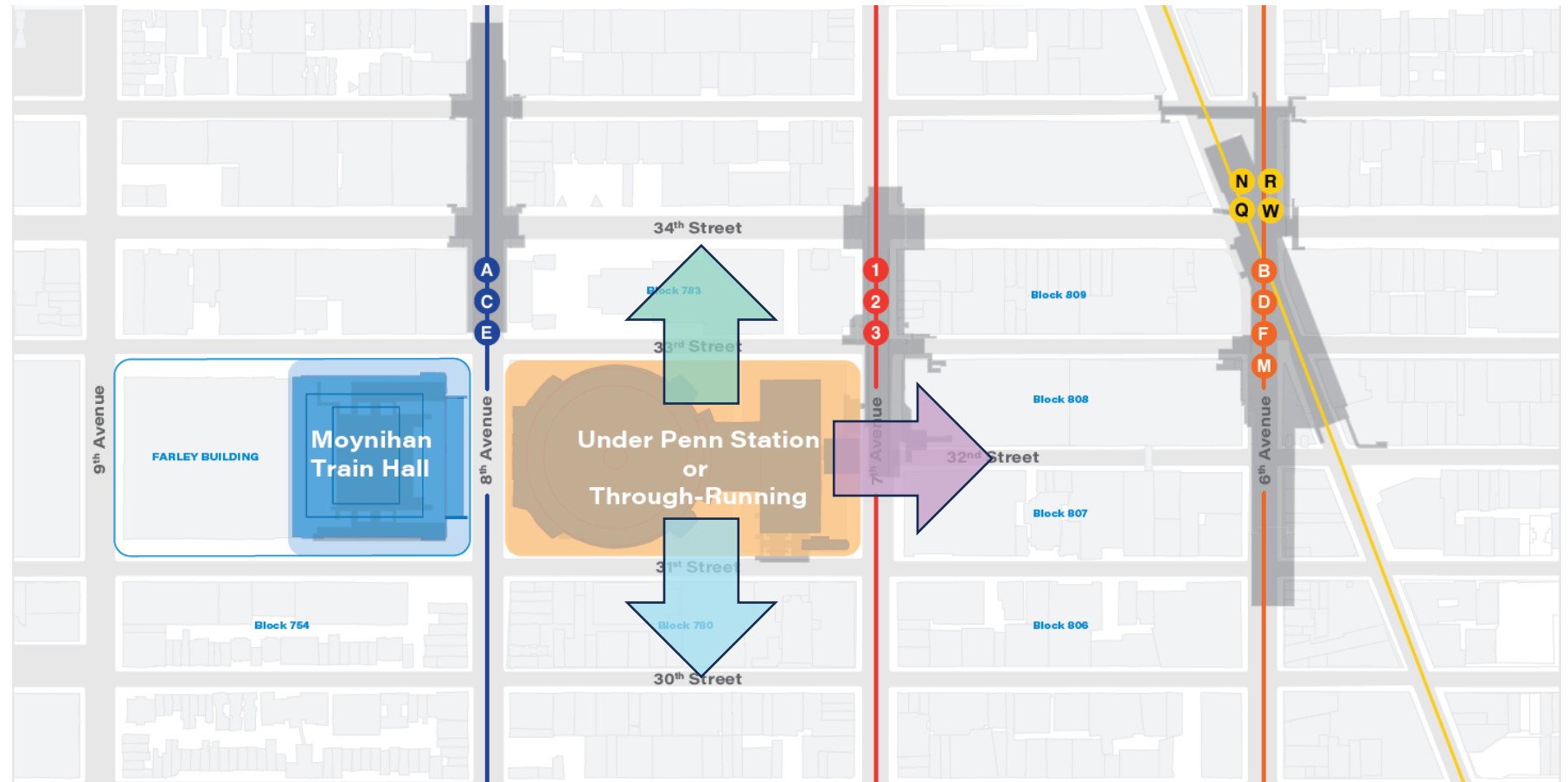
South

Hybrid

Under Penn (East)

Under Penn*

Through-Running*



** Concept deemed infeasible per the “Doubling Trans-Hudson Train Capacity at New York Penn Station” feasibility study available on the project website: penstationcomplex.info*



PENN RECONSTRUCTION INTRODUCTION & NEXT STEPS

Project Purpose and Goals

Draft for Public Comment

Project Purpose:

To improve safety, functionality, and overall customer experience within existing Penn Station

Project Goals:

Enhance safety

by improving platform accessibility and egress, modernizing critical fire-life safety systems, and increasing ceiling heights

Elevate the customer experience

by enhancing the station's visibility and accessibility, widening and modernizing concourses, and introducing daylight where possible

Upgrade building systems

to improve performance, efficiency, and sustainability

Improve station operations

by modernizing and consolidating railroad support spaces

Optimize project delivery

by minimizing construction impacts to customers, construction duration, and project costs

The full list of project draft goals and objectives will be included in a draft purpose and need document, which will become available on the project website: <https://pennstationcomplex.info/>



Preliminary illustrative image

Current Station Challenges: Project Need



Inadequate Platform Egress



Severe Crowding



Inadequate Station Egress & Accessibility



Limited Street Presence

User Experience



Confusing Layout with Low Ceilings

Crowding and Safety



Underperforming Equipment & Systems

**Outdated Building Systems
and Inefficient Operations**

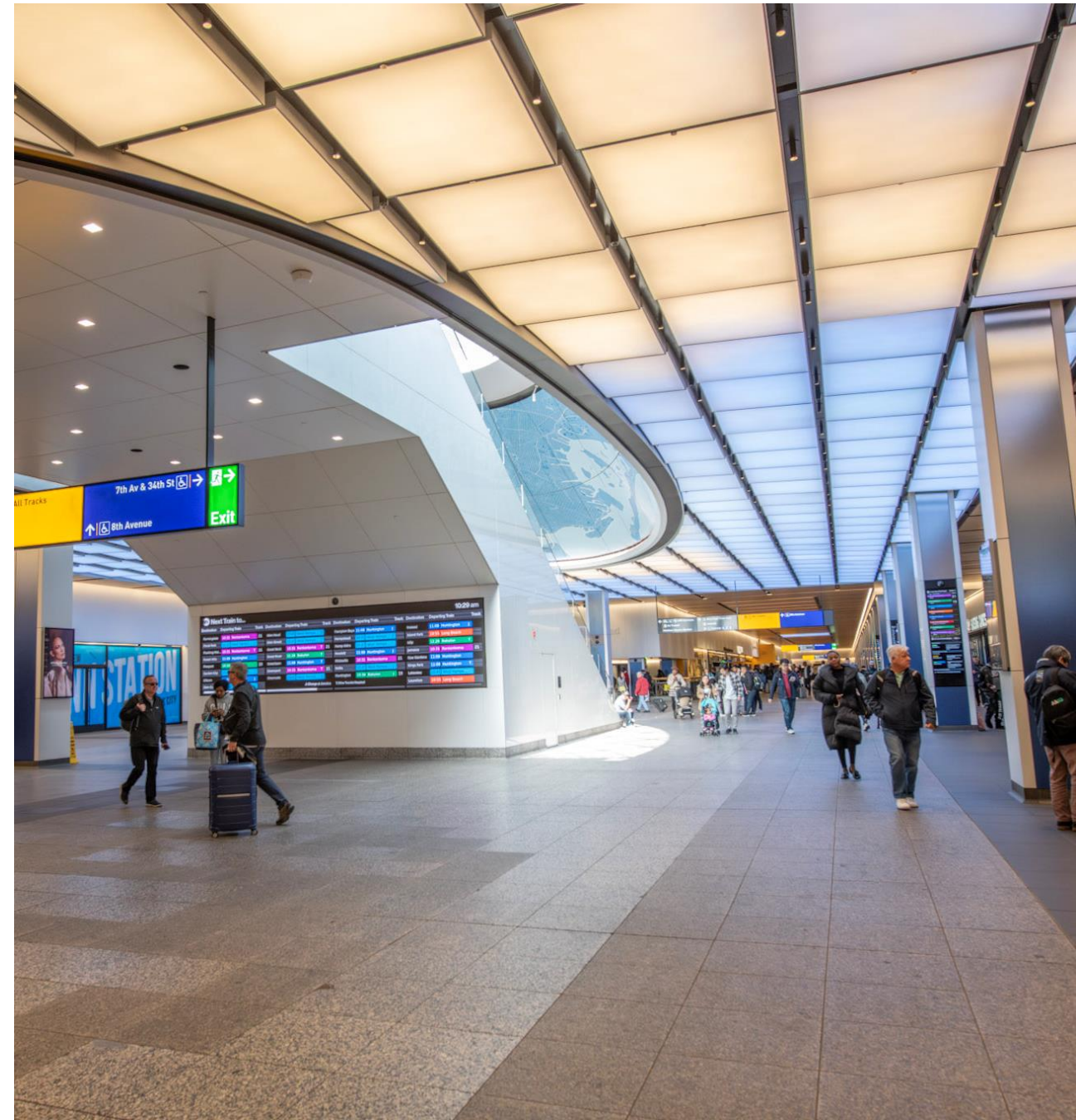
Status & Next Steps

Project Status:

- Master Plan completed in 2022
- Currently in Preliminary Engineering developing 30% design
- Additional public engagement, Environmental Review, and procurement to commence in 2025

Next SWAG Meeting Agenda:

- Summary of Master Plan process & results
- Update on Preliminary Engineering progress
 - Engineering constraints identified
 - More detailed data on user needs
- Feedback and engagement from SWAG members on top priorities



NEXT MEETING

November 19, 5:00-6:30pm – Moynihan Train Hall



SWAG Project Introductions Survey

Scan the QR code to provide additional feedback on:

- *Draft Project Purpose Statements*
- *Draft Project Goals and Objectives*
- *Draft PennX Preliminary Alternative Concepts*
- *Topics for Future Sessions*

The Railroad Partners plan to incorporate relevant feedback into project documents and address outstanding questions during next meeting



An aerial photograph of a city, likely New York City, showing the Hudson River, the Manhattan skyline, and surrounding areas. The image is overlaid with a semi-transparent blue filter. The word "DISCUSSION" is written in large, white, bold, sans-serif capital letters on the left side of the image, preceded by a vertical white line.

| DISCUSSION