PENN STATION TRANSFORMATION New York Penn Station Working Advisory Group (SWAG)

Tuesday, November 19, 2024

Safety and Security Moment



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AmtrakServiceDesk@amtrak.com

Agenda

- Meeting Goals
- Initial Group Activity
- Penn Reconstruction Design Update
 - Path to Preliminary Engineering
 - Preliminary Engineering Update
- Penn Projects Preliminary Timelines
- Discussion & Feedback
- Penn Station Tour (Optional)





Meeting Goals

Provide update on Penn Reconstruction preliminary engineering work, describing learnings and design evolution since earlier Penn Station Master Plan study

Gather initial feedback on proposed station improvements

Share preliminary timelines for both Penn Projects

Tour Penn Station to enhance understanding of challenges and proposed improvements





Initial Activity – Group Poll

What do you appreciate about Penn Station today?

What do you think is the most critical improvement needed?





What do you appreciate about Penn Station today?



< 1 of 2 >



What do you think is the most critical improvement needed?







PENN RECONSTRUCTION

Path to Preliminary Engineering

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Outdated Building Systems and Inefficient Operations

Penn Station Existing Layout



Lower Level (Level A)

Upper Level (Level B)

Penn Station Master Plan

Inter-agency study initiated by Railroad Partners in 2019 to develop framework for **improving existing station experience and operations**

Consensus reached on reconstruction principles, including:

- Transitioning to a **single-level** customer experience
- Prioritizing vertical circulation, accessibility, and egress improvements
- Unifying customer experience and rationalizing station operations
- **Modernizing** facility equipment and systems



PENN RECONSTRUCTION

THE STATE

Preliminary Engineering Update

From Master Plan to Preliminary Engineering



Sharpened focus on top goals of improving safety, functionality, and overall customer experience



Found significant mechanical equipment footprint required to install modern heating, ventilation, air conditioning, and other critical building systems



Uncovered additional structural complexity in Station interior



Updated pedestrian movement studies and modeling highlighted changing patterns in district and projected greatest volumes along 7th and 8th Avenues and concourses mirroring those avenues



Balanced tradeoffs between maximizing station public circulation space and accommodating critical railroad operational functions



Planned thoughtfully to ensure ability to **maintain station operations and service** during construction and **optimize construction cost**

Inspirational Precedents



MTRAK IN 14

Refined Proposed Project Elements

New Mid-Block Entrances Improving accessibility and egress and supporting new mechanical equipment

Underground Concourses



Proposed Platform Improvements

PLATFORM 1



107

90

Total

Proposed Concourse Improvements

- Spacious boarding/alighting areas on single level
- Public circulation space increased by 60%
- Rationalized concourse layout mirroring street grid
- 30% more vertical circulation elements to platforms
- Ceiling heights increased to 16-18' minimum
- Co-located railroad Customer Services
- Spacious consolidated waiting areas and restrooms
- Lower Level (Level A) -----
 - Restrooms
 Waiting Areas
 Customer Service
 Circulation



• Modern retail amenities

Concourse Layout Comparison



Proposed Concourse Space





Proposed Entrance Improvements

- Large canopies clearly identifying Station entrances
- Clear sightlines from interior to street to improve orientation and wayfinding
- Provide 7 ADA accessible entrances from Station concourses to street level
- Additional stairs and escalators to improve pedestrian flow and emergency egress
- **Daylighting** of underground Station
- Integrated modern mechanical equipment to improve Station environment





Proposed Entrance Improvements

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/



PENN PROJECTS PRELIMINARY TIMELINES

- The State

Penn Projects Preliminary Timelines

Illustrative preliminary timelines – subject to change



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Federal Discretionary Grant Awards

Will provide funding for both Penn Projects' environmental review and preliminary engineering activities



U.S. Department of Transportation Federal Railroad Administration

New York – New York Penn Station Reconstruction (Up to \$72,548,687)

New York Metropolitan Transportation Authority

The proposed project is for project development activities to renovate and modernize New York Penn Station in New York City. Scope elements include environmental review and other project development activities to support the reconstruction of Penn Station New York. This project will enable safer and more efficient station operations by increasing concourse capacity and access both within and outside the station, improving ventilation and fire safety, and installing user-friendly wayfinding. The result will be a reduction in the state of good repair backlog along the Northeast Corridor.

New York – Gateway: New York Penn Station Capacity Expansion (Up to \$71,977,500)

Amtrak

The proposed project is for project development activities in support of expanding the track and platform capacity of New York Penn Station in New York City. Scope elements include environmental review and other project development activities to support the capacity expansion of Penn Station New York. This project will boost capacity and expand services for passengers, including the addition of track and platforms, concourses, and amenities. The result will accommodate projected demand and capitalize on the additional capacity enabled by the Gateway Program of projects, including the additional track capacity from the Hudson Tunnel Project.

DISCUSSION





STATION TOUR





Penn Station Working Advisory Group

Meeting Summary

November 19, 2024

Overview

This document provides a summary of the proceedings from the fourth Penn Station Working Advisory Group (SWAG) meeting on Tuesday, November 19th at the Amtrak Executive Conference Center at Moynihan Train Hall. The presentation consisted of a progress update for the Penn Station Reconstruction project.

Meeting Agenda

- Meeting Goals
- Initial Group Activity
- Penn Reconstruction Design Update
 - Path to Preliminary Engineering
 - Preliminary Engineering Update
- Penn Projects Preliminary Timelines
- Discussion & Feedback
- Penn Station Tour (Optional)

Presentation Summary

Meeting Goals

An Amtrak representative opened the meeting by welcoming attendees and presenting the agenda. The goals of the meeting included:

- Providing an update on Penn Station preliminary engineering work
- Describing learnings and design evolution since the earlier Penn Station Master Plan study
- Gathering initial feedback on proposed station improvements
- Sharing a preliminary timeline for both Penn Reconstruction and Penn Capacity Expansion projects
- Providing an optional tour of Penn Station to aid SWAG members' understanding of station challenges and proposed improvements

Initial Activity – Group Poll

Prior to the presentation, meeting attendees were asked to participate in a group polling activity where they were asked to respond to the following prompts:

- What do you appreciate about Penn Station today?
- What do you think is the most critical improvement needed?

Approximately 30 responses were collected and presented in real time by way of a word cloud visualization. The most common responses to the first prompt (What do you appreciate?) centered around words such as *central, connections, LIRR Concourse,* and *intercity travel.*

Responses to the second prompt (What critical improvements are needed?) centered around words such as *concourse, circulation, crowding, wayfinding, trains,* and *cohesive layout*. The Railroad Partners underscored that the SWAG identified the same challenges related to connectivity, wayfinding and signage, and crowding, that compelled the Railroad Partners to develop the Penn Station Master Plan.

Penn Reconstruction: Path to Preliminary Engineering

Current Station Challenges: Project Need

After reflecting on the group activity, the Railroad Partners expounded on the need for the Penn Reconstruction project by citing specific challenges related to inadequate platform egress, limited station presence at street-level, severe crowding at both platform and concourse levels, confusing and byzantine layouts with low ceilings, inadequate station access and accessibility, and underperforming equipment and systems. Many of these challenges stem from the fact that Penn Station operates according to a dated design and layout not well-suited for either modern or future needs, including accommodating the nearly three times as many station users as existed when the station was last reconfigured.

Penn Station Existing Layout

Attendees were presented with plan view diagrams of the existing Lower Level (Level A) and Upper Level (Level B) of Penn Station. The Amtrak representative highlighted the inconsistent public concourse layouts across the two levels that contribute to wayfinding and navigation complexity and confusion. Despite recent targeted investments by the Railroad Partners in waiting areas, new entrances, and other amenities, a more comprehensive approach is needed to fully modernize the station to meet the needs of today and the future.

Penn Station Master Plan

The Amtrak representative provided details on the path taken by the Railroad Partners to advance preliminary engineering work for the Penn Reconstruction project. This process began with an interagency study (Penn Station Master Plan) initiated by the Railroad Partners in 2019 that focused on developing a single vision and conceptual framework for improving the existing station experience and operations. The Railroad Partners identified through that planning process a set of reconstruction principles, including:

- Transitioning to a single-level customer experience from a bi-level, concentrating customer-facing uses together to improve navigation and segregating non-public spaces out of the way
- Prioritizing vertical circulation, accessibility, and egress improvements
- Unifying customer experience and rationalizing station operations by centralizing and collocating customer services to create a more intuitive experience
- Modernizing facility equipment and systems

Penn Reconstruction: Preliminary Engineering Update

From Master Plan to Preliminary Engineering

An MTA representative then led attendees through new developments following the completion of the conceptual design work of the Penn Station Master Plan. The Railroad Partners awarded a preliminary engineering contract, enabling the Penn Reconstruction project, wherein the primary goals and priorities have remained largely consistent with those of the Master Plan: improving safety, functionality, and overall customer experience.

Preliminary engineering work has uncovered a set of unanticipated challenges for the station. This includes needing a larger footprint for Heating, Ventilation, and Air Conditioning (HVAC) and other mechanical, electrical, and plumbing (MEP) equipment and critical building systems than the Penn Station Master Plan had estimated. Through preliminary engineering work, the Railroad Partners have also identified additional structural complexities that have necessitated changes to the conceptual plans, such as the precise placement of station entrance vertical circulation elements on 8th Avenue.

The Railroad Partners have conducted updated pedestrian movement studies and modeling to better understand station user desire paths to inform the design of concourse and entrance improvements. The Railroad Partners have also continued to assess the optimal balance of front of house and back of house uses and continued to investigate how construction can be carried out cost effectively while minimizing outages and disruptions to service.

Inspirational Precedents

Several precedents, both local and international, were cited as examples of what can be accomplished by way of the Penn Reconstruction project.

- **Grand Central Terminal (NYC)**: Notable for representing a more integrated Midtown East experience compared to a Penn Station that currently feels isolated from the larger district
- Kings Cross (London, England): An example of an historic and storied station that was successfully rejuvenated
- Florence Santa Maria Novella (Florence, Italy): A station with an exemplary concourse exhibiting vibrancy, spaciousness, and comfort

Refined Proposed Project Elements

The MTA Representative went on to describe the primary project elements and proposed improvements:

- **Station platform accessibility:** The project is considering how to maximize and rationalize the platform vertical circulation layout in the station to reduce congestion on the platforms and increase accessibility.
- **Concourses:** Widened, double-height concourses with improved legibility, egress, and a maximized and rationalized platform vertical circulation layout.
- Entrances: New mid-block entrances and improvements to existing entrances on 8th Avenue and 31st Street & 7th Avenue to improve accessibility, egress, and support new mechanical equipment.

Proposed Platform Improvements

The presentation provided a plan view of proposed improvements to platform accessibility and egress, which focuses on improving the number and placement of vertical circulation elements, such as stairs and elevators. Stairs represent the most effective element for maximizing egress, while locating elevators in predictable places—and targeting at least 2 per platform—will help signal to station users where they can be easily found from the concourse level.

Proposed Concourse Improvements

The presentation provided a plan view of the proposed single-level public concourse that would serve all tracks with a layout closely mirroring the above street grid. Improvements would alleviate crowding by increasing circulation space by 60 percent and providing 30 percent more vertical circulation elements to platforms. Proposed concourse improvements also include increased ceiling heights, co-located railroad customer services, modern retail amenities, and spacious consolidated waiting areas and restrooms to improve the overall customer experience.

Proposed Entrance Improvements

One of the main goals of the project is to improve accessibility and egress in the station. To address this, the current plan proposes upgrades at the northwest and southwest corners of the station on 8th Avenue, and new entrances at the midblock areas of 31st Street and 33rd Street.

Penn Projects Preliminary Timelines

Penn Projects Preliminary Timelines

In response to a previous request by the SWAG, a representative from NJ TRANSIT shared the proposed preliminary illustrative project timelines for both the Penn Reconstruction and Penn Capacity Expansion projects. Both projects are in the pre-NEPA outreach phase with Penn Reconstruction engaged in preliminary engineering work and Penn Capacity Expansion still undergoing conceptual design. The timing of future phases is subject to change, based on a number of factors.

Federal Discretionary Grant Awards

The NJ TRANSIT representative highlighted how recent grant awards from the Federal Railroad Administration (FRA) will allow project work to keep moving forward. He noted that both grants were not awarded in the previous cycle and investments in hard infrastructure on railroads often get prioritized over station improvements, so it is a positive sign that both projects received these awards in this year's cycle. The awarded funds will be used to advance environmental review and preliminary engineering work on both projects.

Penn Station Tour (Optional)

Railroad Partner representatives led SWAG members on a tour of the existing Penn Station. SWAG representatives viewed the following areas of the station:

- Moynihan Train Hall, including the North Balcony, the ticketed waiting area, and the West End Concourse
- The new LIRR Concourse and 33rd Street & 7th Avenue entrance
- The Amtrak/NJ TRANSIT Terminal Operations Center (TOC)
- The Central Concourse
- The New Jersey Transit Concourse and the 32nd/7th Avenue Entrance
- The Upper Level Departure Concourse

Questions Summary

Questions and answers have been slightly edited for clarity and length and organized based on discrete topics.*

Process

- Q. How will the team be collecting public input moving forward?
- A. Everything you have seen is a sneak preview of what will be presented in the first set of public meetings targeted for January 2025, followed by a formal public comment period.

Proposed Improvements

- Q. Have there been any considerations or accommodations to create a more direct connection between Moynihan Train Hall and Penn Station? The current below grade connection is a very narrow passage challenged by the presence of the A/C/E subway trains. Recognizing that double-height ceilings are not possible here, could the passage be widened?
- A. It is correct that there is an unfortunate bottleneck here created by the subway infrastructure that prevents double-height ceilings like we are proposing throughout other public spaces in the station. Widening is a great piece of feedback for our team to consider in addition to other interventions to make that connection a more pleasant experience, as well as improve the street level connections, which will involve working with city agencies.
- Q Connecting to the east and Herald Square should not be forgotten. Does the Gimbels Passageway have a future in all of this? The amount of people traversing the street level between the subways at 34th Street and 6th Avenue and Penn Station is staggering.
- A. Creating a connection to Herald Square via a pedestrian passage continues to be a long-term goal of the Railroad Partners but is not part of the Penn Reconstruction or Penn Capacity Expansion projects.
- Q. We have been talking a lot about allocation of space, including tradeoffs between having more/less front of house (FOH) versus back of house (BOH) uses within the station. Could retail be sacrificed if it were to help the station achieve better targets for lighting, openness, and visibility?
- A. There are certain constraints we have to incorporate into our plans. As an example, BOH crew quarters need to be located proximate to the tracks and we know certain vertical circulation elements (VCEs) conflict with user desire paths. We are still working through the details of what elements will be placed exactly in which part of the station, but we are sensitive to over-retailing spaces and want to avoid renovating Penn Station in a manner that feels more like a shopping mall than a train station.
- Q. Can you say more about how these renovation plans account for a potential expansion of the existing station, especially when we do not know for certain where such an expansion would occur?

- A. We are closely coordinating the two projects' planning efforts to ensure that we are preserving opportunities to make concourse connections from the existing station in any direction of a potential future expansion. The current proposed Penn Reconstruction concourse design would allow for connections in all directions we anticipate will come under consideration during the Penn Capacity Expansion process.
- Q. Can you please say more about what unifying and rationalizing existing station operations will look like? How will this account for a future fourth operator in the form of Metro-North, especially as they use a catenary (overhead) line?
- A. Our goal is for Penn Station to feel like one single station for all customers. To that end, we are working to centralize and co-locate features like customer service desks, so there is a single area with staff from all operators. Similarly, we are planning for consolidated waiting areas for use by customers of all operators.
- Q. Are you planning to make the platforms wider as part of the proposed improvements?
- A. The primary focus of the Penn Reconstruction project with regard to platforms is to reconfigure the vertical circulation elements to improve safety and egress. As discussed in previous meetings, widening station platforms would require major construction in the station trainshed that would be very disruptive to service and operations. We are trying to minimize those types of disruptive impacts to the extent we can.

Public Realm

- Q. What is being done about the MSG trucks that are likely to conflict with the proposed midblock entrances?
- A. We understand MSG loading operations were a big part of the conversation surrounding MSG's permit renewal and that they are currently working with NYC DOT on a Traffic Management Plan. Many of the changes proposed in that plan have already been implemented. We will continue to engage and see where our agencies and this project can be part of a solution, but it is ultimately incumbent upon MSG to tackle these challenges and incumbent upon the City agencies with jurisdiction, as the regulatory entities, to impose and enforce restrictions on MSG loading activities.
- Q. It still feels like despite these improvements, the station still will not have much street presence. The issue with MSG trucks speaks directly to this. Is there any chance of creating better connections to both 7th Avenue and 8th Avenue? The proposed changes address the dysfunctional entrances, but it does not feel like we are shooting for the moon. My organization is expecting not just a great station, but a great district. We recognize MSG has a responsibility, but it feels like there are better solutions that can address both problems.
- A. We are confident that the new entrances will be significant improvements from the current state and we will also be proposing ways to improve the public realm surrounding the station. We do recognize that there has been significant stakeholder interest in the idea of a train hall along 8th Avenue, however. At present, an 8th Avenue train hall is not part of the proposed Penn Reconstruction project, as that project is focused on making high-priority, critical safety and functionality improvements to the station as it exists today, but the idea is not off the table addition of an 8th Avenue train hall could be evaluated as part of the EIS process for the Penn Capacity Expansion project, which would provide the public with many structured opportunities to provide input on the idea of creating a new train hall. Reconfiguring the MSG Theater to

create an 8th Avenue train hall would also be dependent on the outcome of more conversations with Madison Square Garden, which owns that property.

Methodology

- Q. Are the planned improvements being driven and informed by revenue/ridership goals or more so by the constraints of the station that have been identified? Is what is being proposed going to allow the station to reach level of service (LOS) goals during peak periods? How is this being measured?
- A. Both are factors. We have just started with modeling LOS but are confident that the approach we are taking will position the station to respond well during peak conditions and be an improvement over the current state. Penn Station is a very unique facility, which makes it challenging to meet the exact letter of every single building code, but the most important measure we will be relying on is a performance-based code for egress so we can be confident that in emergencies people can safely evacuate the station.
- Q. Since the new LIRR concourse has opened, have you conducted new pedestrian counts to understand user habits and desire lines? It would also be helpful to better understand what is happening underground vs. what is happening above ground when customers exit the station and enter the public realm.
- A. Yes, we conduct these on a regular basis, especially with workers increasingly returning to offices. We have conducted new pedestrian counts recently and will discuss the best way to share more information on those findings with you all.

Attendance

Station Working Advisory Group

- Eugene Sinigalliano, 251 West 30th Street Residential Tenants Association
- Dan Biederman, 34th Street Partnership
- Jesse Lazar, American Institute of Architecture New York | Center for Architecture
- Chad Purkey, Association for a Better New York
- Angel Santana, Empire State Development
- Gary Prophet, Empire State Passenger Association
- Christopher Boylan, General Contractors Association of New York
- Paul Macchia, Madison Square Garden
- David Sigman, Manhattan Community Board 5
- Christine Berthet, Manhattan Community Board 4
- Howard Levine, MTA Accessibility Representative
- Gerard Bringman, LIRR Commuter Council
- Lisa Daglian, Metro-North Railroad Commuter Council
- Randy Glucksman, Metro-North Railroad Commuter Council
- Tom Devaney, The Municipal Art Society of New York
- Elizabeth Goldstein, The Municipal Art Society of New York
- Andrew Albert, NYC Transit Riders Council

- Ed Hoff, NJ TRANSIT Accessibility Representative
- Rich O'Malley, New York Building Congress
- Joshua Simoneau, New York City Department of City Planning
- David Breen, New York City Department of Transportation
- Joshua Kraus, New York City Economic Development Corporation
- Ferlanda Fox Nixon, Newark Regional Business Partnership
- Madeleine McGrory, Office of Manhattan Borough President Mark Levine
- Jessica O'Connor, Office of New Jersey Governor Phil Murphy
- Laurie Hardjowirogo, Office of New York City Council Member Erik Bottcher
- Julia Kerson, Office of New York Governor Kathy Hochul
- Dave Ullman, Office of New York Governor Kathy Hochul
- Jacob Golden, Office of New York State Assemblymember Tony Simone
- Jonah Rose, Office of New York State Senator Brad Hoylman-Sigal
- Alex Marinides, Office of New York State Senator Liz Krueger
- Joe Raguzin, Office of the Rockland County Executive
- Craig Lader, Office of the Westchester County Executive
- Richard Sun, Office of U.S. Senator Chuck Schumer
- Steve Barton, Office of U.S. Senator Chuck Schumer
- Brook Jackson, Partnership for New York City
- Todd Goldman, Port Authority of New York & New Jersey
- Jim Mathews, Rail Passengers Association
- Maddie DeCerbo, Real Estate Board of New York
- Tom Wright, Regional Plan Association
- Sarah Kaufman, Rudin Center for Transportation Policy and Management, NYU
- Judy Kessler, Vornado Realty Trust
- Joe Sgroi, Office of U.S. Senator Cory A. Booker

Project Team

- Sara Appleton Amtrak
- Petra Messick Amtrak
- Margaret Clark Amtrak
- Kate Cunningham Amtrak
- Anabel Frias Rosario Amtrak
- Craig Schulz Amtrak
- Laura Colacurcio Amtrak
- Ryan Morson Amtrak
- Wei Yu Amtrak
- Sharon Tepper Amtrak
- Temoor Ahmad MTA
- Joe O'Donnell MTA
- Sean Fitzpatrick MTA
- Jessica Mathew MTA
- Matthew Zettwoch MTA
- Jeremy Colangelo-Bryan NJ TRANSIT
- Grant King NJ TRANSIT

- Joe Quinty NJ TRANSIT
- Ilan Acklesberg Public Works Partners
- Daniel McCombie Public Works Partners
- Caroline Decker WSP
- Carol Wynperle WSP
PENN STATION TRANSFORMATION New York Penn Station Working Advisory Group (SWAG)

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Tuesday, October 29, 2024

Safety and Security Moment



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Take time to refresh & recharge.

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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



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)



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Why at least 48 TPH: Trans-Hudson Projected Ridership

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



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





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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

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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 – <u>below</u> what is needed to accommodate future projections & policy goals



Defining Through-Running



An operating regime for a station



A way to support cross-regional mobility

Turnback vs. Through-Running Service



Regional Metro

Penn Station Today: A Hybrid Operation



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





Through-running Regional Metro service requires outside additional investments, <u>above</u> <u>and beyond</u> 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	\checkmark	\checkmark	\checkmark		
Dedicated Shoulder Station	\checkmark	\checkmark	\checkmark	\checkmark	
Multiple Stations in the Central Business District	\checkmark	\checkmark	\checkmark		\checkmark
Transit-Style Headway- Based Service	\checkmark	\checkmark	\checkmark	\checkmark	
Supplements Traditional Suburban Service	\checkmark	\checkmark	\checkmark	\checkmark	

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



• Regional Metro (subway-like service)



- 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



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



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

Building a brighter

Capital Project Phases of Work



NEPA Process

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

Decision: After Draft and Final Early Phases: A project sponsor develops a project's Class of Action: There are three types (or classes) of environmental EAs/EISs have been reviewed by reviews, ranging from the simplest (CE) to the most complex (EIS). initial plan, including a statement of purpose and federal agencies and receive need. public comment, a Decision Categorical Exclusions (CE) Document is signed that allows Planning and Scoping the project to proceed. Significant **Environmental Assessment (EA)** Impact? **Coordination Analysis** Finding of No Significant NO **Environmental Impact Statement** Impact (FONSI) (EIS) NO Notice of Intent and Scoping. YES ٠ Identified Purpose and Need. **Development of Preliminary** UNKNOWN Significant Impact? Concepts. Identification of Alternatives, YES Environmental Studies, and **Record of Decision** Evaluation. (ROD) Draft and Final EIS.

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

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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



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

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

NJ TRANSIT Storage

Yard Location TBD

Secaucus

Expansion 8

Bergen Loop

Hoboken Terminal ludson Tunne

Hudson Yards

Concrete Casing

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Project

New York Penn Station &

Moynihan Train Hal

NY Penn Station

Capacity Expansio

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Portal South

Bridge

NEW JERSEY

Portal North

Bridge

GATEWAY PROGRAM OVERVIEW

Sawtooth Bridge

Replacemen

Rehabilitation

Fourth Track

Newark Penn Station

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NEW

YORK

Amtrak / NJ TRANSIT Northeast Corridor

Commuter/Intercity Rail

Preliminary Design/NEPA

Advanced Design and

Gateway Program

Concept Planning

Pre-Construction

Construction

Infrastructure

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





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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



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

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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/



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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

Building a brighter

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



DISCUSSION

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Penn Station Working Advisory Group

Meeting Summary October 29, 2024

Overview

This document provides a summary of the proceedings from the third Penn Station Working Advisory Group (SWAG) meeting on Tuesday, October 29th at the NYU Wagner Graduate School of Public Service.

Meeting Agenda

- Meeting Goals
- Doubling of Trans-Hudson Train Capacity at Penn Station: Continued Discussion
- Penn Projects Process
- Penn Capacity Expansion Introduction
- Penn Reconstruction Introduction
- Next Steps

Presentation Summary

Meeting Goals

An Amtrak representative opened the meeting by welcoming attendees and presenting the agenda. The goals of the meeting included:

- Answering questions about the feasibility study, including specific topics:
 - Rationale for achieving the 48 trans-Hudson trains per hour (TPH) goal
 - o Dwell times
 - Through-running and regional metro
- Introducing the proposed Penn Capacity Expansion (PennX) project purpose, goals, and preliminary alternatives
- Introducing the proposed Penn Reconstruction (PennR) project purpose and goals
- Previewing the next steps for both the PennX and PennR projects

Doubling of Trans-Hudson Train Capacity at Penn Station: Continued Discussion

48 Trains Per Hour

A representative from Amtrak explained the rationale behind the capacity goal for the Gateway Program and Penn Capacity Expansion project of achieving at least 48 trans-Hudson trains per hour (TPH) in peak periods in the peak direction, outlining and elaborating on the following topics:

- Ridership trends: Amtrak and NJ TRANSIT's historic data show a steady increase in ridership since the 1990s combined with sharp recoveries after temporary dips due to historic events such as Super Storm Sandy and the Covid-19 pandemic. NEC Future, the Federal Railroad Administration's (FRA's) comprehensive plan for the Northeast Corridor and a Gateway Service Planning effort both projected ridership demand to amount to 52-56 TPH between 2040 and 2050. The completion of the Gateway Program, plus Amtrak's and NJ TRANSIT's planned capital investments and off-peak service improvements are projected to increase ridership during that period and beyond.
- 2) Policy goals: With planned infrastructure improvements in New Jersey and New York, the Gateway Program will enable direct "one-seat ride" access to Penn Station for all NJ TRANSIT northern New Jersey rail lines, a long-term policy goal of NJ TRANSIT and the Gateway Program to create additional connectivity and access to and from the region's economic center. Providing meaningful connection with consistent, reliable service between New York and New Jersey will also support environmental policy goals by promoting the shift from cars to trains.
- 3) **Maximizing station capacity:** Although ridership demand is projected at 52-56 TPH, current signal technologies and fire and life safety regulations will result in a maximum tunnel capacity of 48 TPH once the new Hudson River Tunnel (HRT) is built, and the full rehabilitation of the North River Tunnel (NRT) is completed. Making the goal of the PennX project at least 48 TPH ensures the full train capacity of the tunnels is utilized, maximizing the return on the public's investment in the Hudson Tunnel Project. Additional station capacity will also allow for the growth of Amtrak's Empire Line service and/or the introduction of Metro-North Hudson Line service into Penn Station.

Through-Running

The presentation continued by revisiting the topic of through-running operations, defining throughrunning as 1) a station operating regime where trains stop in the station and continue on in the same direction and/or 2) a way to support cross-regional mobility. Through-running operations differ from turnback operations, during which trains exit the station from the direction in which they came to continue revenue service or to return to rail yards.

Today, Penn Station operates with both through-running and turnback movements for intercity and commuter trains. This necessary mixture of operating regimes results in varying train dwell times that maximize throughput at the station.

Regional Metro

Cities that have implemented through-running and regional metro systems have done so by separating the regional metro tracks from the legacy train services. This is because regional metro systems typically need to operate on purpose-built infrastructure that can support frequent,

subway-like service without interfering with legacy services (e.g., suburban and intercity service), such as simpler interlockings; to include regional metro services in the same facilities as suburban and intercity rail would decrease capacity and increase dwell times. The Railroad Partners conducted a survey of international best practices in jurisdictions that had introduced through-running regional metro services, which concluded that those jurisdictions constructed additional infrastructure, such as simplified interlockings and dedicated shoulder stations, to operate through-running services.

The Railroad Partners explained key differences between a through-running regional metro service and traditional suburban service. Regional metro systems are frequent, subway-like services serving the job- and housing-dense inner portions of metro areas (i.e., 25-30 miles from the central business district), using train equipment similar to subway systems (e.g., with many doors allowing for quick boarding/alighting). Suburban systems, in contrast, serve longer distances on fixed timetables.

To achieve through-running regional metro service in this region, additional investments beyond the Gateway Program are needed. In addition to capital investment in new rolling stock, tracks and signals, and stations, a full and collaborative regional planning effort must take place in order to introduce new train operations to Penn Station, the metropolitan area, and beyond.

The presentation also reviewed Philadelphia's one-time capital investment in through-running, noting that capital improvements alone are not enough to generate demand. It also requires major region-wide capital investments and sustained operating support.

Dwell Time

An Amtrak representative also explained the many factors influencing train dwell times, which is the amount of time a train occupies a station platform. Such factors include:

- Service type (regional, suburban, or intercity)
- Platform width and vertical circulation (i.e., how quickly passengers can enter and exit platform levels)
- Train characteristics (e.g., length of car, doors per car, single vs. double level, acceleration, and breaking)
- Passenger characteristics (e.g., intercity passengers with luggage, passengers with mobility challenges, or commuters)

Different types of train services can result in different dwell times, which, in turn, affects Penn Station's operations and capacity.

Penn Projects Process

The Railroad Partners then presented the phases of a capital project and the National Environmental Policy Act (NEPA) process required of any federally funded project.

Penn Capacity Expansion Introduction and Next Steps

A representative from NJ TRANSIT discussed the purpose of the Penn Capacity Expansion Project. The goals of the Penn Capacity Expansion Project include increasing rail capacity, improving customer experience, developing stronger connections between Penn Station and the surrounding neighborhood, minimizing impacts on the environment, and supporting local and regional policy priorities.

Penn Reconstruction Introduction and Next Steps

A representative from the MTA discussed the need for and purpose of the Penn Reconstruction project and described the project's goals as enhancing safety, elevating the customer experience, upgrading building systems, improving station operations, and optimizing project delivery.

Status and Next Steps

The Railroad Partners previewed the upcoming November 19th SWAG meeting, which will provide a more detailed update on the Penn Reconstruction Project. The Railroad Partners will address the following topics:

- Summary of Penn Station Master Plan process and results
- Update on preliminary engineering progress
- Feedback and engagement from SWAG members on top priorities

The Railroad Partners also directed SWAG members to an online survey where they can provide preliminary feedback on presentation topics and relay what information they would like to hear in future sessions.

Questions and Comments Summary

Questions and answers have been slightly edited for clarity and length and organized based on discrete topics.*

Process

Questions:

Regarding the options for station capacity expansion: What is the logic that is leading to the decisions the Railroad Partners are making? What are the major pieces of evidence that the existing Penn Station is insufficient for current and future demand? Which ideas have been rejected and which ones can be used for a better station and less impact on the surrounding community?

Comment:

SWAG Members would benefit from receiving a simplified Gantt chart detailing all the various project timelines and how they relate to one another.

Trans-Hudson Train Capacity

Questions:

Are there other measures that can be taken to continue to increase passenger capacity within the constraints of the Trans-Hudson train capacity of 48 trains per hour?

A: We are in the middle of increasing the train length and multi-level fleet, which would greatly increase passenger capacity. We want to squeeze as much as we can out of the tunnels.

Do 48 trains per hour mean 24 trains per tunnel? How do the old tunnels figure into the 48 trains per hour figure?

A: Each set of tunnels has one inbound track and one outbound track. This is true for existing North River Tunnel (NRT) as well as in-construction Hudson River Tunnel (HRT). Once the new HRT is built and open for service, we will shift all existing NRT traffic (24 tph during the peak) to the new HRT. A full-scale rehab of the existing NRT will be performed, one track at a time. Once that rehab is complete, the existing NRT and the new HRT will collectively have 4 tracks (2 inbound and 2 outbound) at which point we will be able to operate 48 trains per hour (distributed across 2 inbound tracks in AM peak period or 2 outbound tracks in PM peak period).

Are you expecting additional demand under the East River following the completion of the Hudson Tunnel Project?

Through-Running + Regional Metro

Questions:

Are we taking steps to establish a regional metro network that is responsive to the current and anticipated demand for housing and to different job markets, such as Downtown Brooklyn or Long Island City?

A: The numbers for the Manhattan CBD far eclipses other regional job centers. We are addressing that neglected need first and relying on other transportation to the secondary job centers.

A: Manhattan is still the great engine of job growth, and most housing is being built in New Jersey, and to a lesser extent, the five boroughs. These are numbers that are orders of magnitude larger than housing growth in Westchester County, Rockland County, Long Island, or Connecticut

A: The Gateway Program addresses the urgent need to upgrade and expand existing 100-year-old infrastructure that had not received adequate public investment until the Infrastructure Investment and Jobs Act of 2021. Gateway represents just the beginning of planned and contemplated

investments across the rail network that can be implemented with sustained and robust public funding.

Have there been other discussions about making the transit experience easier, either through consolidated ticketing, coordinated timetables, or other less capital-intensive improvements? Do they solve the more urgent problems more quickly?

Penn Capacity Expansion

Questions:

Why is eminent domain and property acquisition not enough to eliminate certain Penn Station expansion alternatives as feasible? Have we prematurely eliminated alternatives that are possible and do not require property acquisition?

Are there additional capacity needs expected from Penn Access and the East River tunnels?

What have you all learned that we can apply to improvements at Penn Station? Do the alternatives provide the opportunity to reduce impacts? What are the neighborhood implications of placing the expansion in different places?

Penn Reconstruction

Comments:

Please explicitly incorporate improved wayfinding as a goal of the Penn Reconstruction project. It has gotten to the point where New Yorkers themselves don't know where to go.

It is important to design for people with vision issues and incorporate something with auditory or tactile features as a meeting point within the station for those users. It is essential that this station is accessible, and that the accessibility features are intuitive.

* The Railroad Partners will address all questions and comments from SWAG members in subsequent meetings and/or through the formal responses posted to the Penn Station projects website at <u>https://pennstationcomplex.info/</u>.

Attendance

Station Working Advisory Group

- William Otterson, 251 West 30th Street Residential Tenants Association
- Maddie Baker, 34th Street Partnership
- Gabriella Green, Empire State Development
- Gary Prophet, Empire State Passenger Association
- Christopher Boylan, General Contractors Association of New York
- Paul Macchia, Madison Square Garden

- David Sigman, Manhattan Community Board 5
- Howard Levine, MTA Accessibility Representative
- Lisa Daglian, LIRR Commuter Council
- Randy Glucksman, Metro-North Railroad Commuter Council
- Andrew Albert, NYC Transit Riders Council
- Ed Hoff, NJ TRANSIT Accessibility Representative
- Carlo Scissura, New York Building Congress
- Edith Hsu-Chen, New York City Department of City Planning
- Joshua Simoneau, New York City Department of City Planning
- David Breen, New York City Department of Transportation
- Joshua Kraus, New York City Economic Development Corporation
- Ferlanda Fox Nixon, Newark Regional Business Partnership
- Madeleine McGrory, Office of Manhattan Borough President Mark Levine
- Dana Adelman, Office of New Jersey Governor Phil Murphy
- Matthew Anderson, Office of New Jersey Governor Phil Murphy
- Julia Kerson, Office of New York Governor Kathy Hochul
- Dave Ullman, Office of New York Governor Kathy Hochul
- Jacob Golden, New York State Assemblymember Tony Simone
- Jonah Rose, Office of New York State Senator Brad Hoylman-Sigal
- Joe Raguzin, Office of the Rockland County Executive
- Craig Lader, Office of the Westchester County Executive
- Joe Sgroi, Office of U.S. Senator Cory A. Booker
- Aman Patel, Office of U.S Senator Kirsten Gillibrand
- Patrick Donovan, Office of U.S. Senator Chuck Schumer
- Brook Jackson, Partnership for New York City
- Todd Goldman, Port Authority of New York & New Jersey
- Jim Mathews, Rail Passengers Association
- Tom Wright, Regional Plan Association
- Sarah Kaufman, Rudin Center for Transportation Policy and Management, NYU
- Elizabeth Goldstein, The Municipal Art Society of New York
- Audrey Wilson, Vornado Realty Trust

Project Team

- Julie Cowing AKRF
- Connor Lacefield AKRF
- Sara Appleton Amtrak
- Petra Messick Amtrak
- Kate Cunningham Amtrak
- Craig Schulz Amtrak
- Laura Colacurcio Amtrak
- Ryan Morson Amtrak
- Jason Abrams Amtrak
- Purvesh Shah Amtrak

- Sharon Tepper Amtrak
- Audrey Heffernan HDR
- Temoor Ahmad MTA
- Joe O'Donnell MTA
- Sean Fitzpatrick MTA
- Jessica Mathew MTA
- Jeremy Colangelo-Bryan NJ TRANSIT
- Todd DiScala NJ TRANSIT
- John Chartier NJ TRANSIT
- Jake Markey Public Works Partners
- Joel Hochman Public Works Partners

PENN STATION TRANSFORMATION

New York Penn Station Working Advisory Group (SWAG)

Tuesday, October 8, 2024

Safety and Security Moment



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Agenda

Meeting Goals

State of Regional Rail Service The Need for Increased Trans-Hudson Capacity

Doubling Trans-Hudson Train Capacity at Penn Station Study Objectives & Findings

Next Steps

Small Group & Plenary Discussion





Meeting Goals

- Present context for and findings of recently released engineering feasibility study: "Doubling Trans-Hudson Train Capacity at Penn Station"
- Explain how study relates to Penn Station projects
- Answer questions about the study
- Gather feedback on planned next steps





STATE OF REGIONAL RAIL SERVICE

The Need for Increased Trans-Hudson Capacity

THE PART

Planning Context on the Northeast Corridor (NEC)



The long-term vision and near-term capital investment plan for the NEC calls for **a capacity expansion of New York Penn Station** to accommodate a **doubling or more of peak-hour trans-Hudson passenger train service**

Policy Goal of Enabling Weekday Peak One-Seat Ride





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48 Trans-Hudson Trains per Hour for 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

Penn Capacity Expansion Goals

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



PENNSTATION NTRANSIT

DOUBLING TRANS-HUDSON TRAIN CAPACITY AT PENN STATION

Study Objectives and Findings

Doubling Trans-Hudson Train Capacity at Penn Station: Overview

Feasibility Study co-sponsored by Amtrak, MTA, and NJ TRANSIT

Completed by WSP/FXC consultant team

An initial step of the Penn Station Capacity Expansion Project Study commissioned to answer the question:

Is it possible to achieve the capacity goals of the Penn Station Capacity Expansion Project **using infrastructure within the property lines of the existing station**?

Conclusion: It is not possible; it will be necessary to expand the station footprint

PENN STATION

Doubling Trans-Hudson Train Capacity at Penn Station

An Engineering Feasibility Study of Alternatives Within the Existing Station Footprint

https://pennstationcomplex.info/

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Feasibility Study: Evaluation Methodology



- Two-step screening process: technical feasibility (pass/fail) → economic feasibility
- Only advance to second step if pass in <u>all</u> five criteria in first step

Overview of Alternatives Evaluated in the Feasibility Study

Alternative 1: Under Penn Station

Add new platform level and tracks below the existing track level of Penn Station, either by underpinning or mined tunnel

Alternative 2: Through-Running

Convert Penn Station to all throughrunning service



Summary of Alternatives | Four Design Concepts

Alternative 1: Under Penn Station

Legend Existing below-grade infrastructure Hudson Tunnel Project below-grade infrastructure (30% Design) HTP HYCC-3 infrastructure (100% Design)



Design Concept 1: Underpinning

Design Concept 2: Mined

Alternative 2: Through-Running



Design Concept 1: Full Reconstruction

- Legend
- Reconfigured Track Alignment
 Existing Track Alignment
- Reconfigured Station Platforms

Design Concept 2: Limited Reconfiguration



Key Terms and Concepts



UNDERPINNING

MINED TUNNEL



Key Terms and Concepts



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Survey of International Best Practices



- Regional metro systems comprise a targeted portion of the regional rail networks centers of population, employment, business or major attractions like airports that support frequent, fast service
- Regional metro systems typically do not operate within original train sheds but via purpose-built station expansions (shoulder stations) adjacent to existing major stations, and separate, simpler interlockings that facilitate frequent transit-style service
- Systems take decades to implement, usually in stages

PENN STATION NTRANSIT

Choose your

FEASIBILITY STUDY BRIEFING

Analysis and Implications

Alternative 1: Under Penn | Design Concept 1: Underpinning



Adds 10 single-level tracks within the existing station footprint, directly below the lower level of the station Requires underpinning of existing Penn Station columns between Eighth and Seventh Avenues Requires permanent removal of at least 2 existing platform tracks to accommodate vertical circulation between the lower concourse and main concourse

Evaluation of Under Penn – Underpinning

Track Geometry: meets feasibility-level requirements

Constructability: need to underpin more than 1,000 columns

Fire-Life Safety: unable to comply with requirements (without additional permanent real estate acquisitions beyond the station footprint)

Operational Performance: insufficient trans-Hudson capacity (+14 incremental trains per hour compared to +24 needed)

Future Regional Rail: does not preclude implementation of cross-regional rail

Track	Constructability	Fire-Life	Operational	Future
Geometry		Safety	Performance	Regional Rail
Pass	Fail	Fail	Fail	Pass



Alternative 1: Under Penn | Design Concept 2: Mined Cavern



Adds 10 single-level platform tracks (same as Underpinning design concept) in multiple mined caverns side-by-side within the existing Penn Station footprint, directly below the existing lower level of the station

Vertically separated from the existing station; would not require any underpinning

Requires vertical circulation between the lower concourse and main concourse to go transversely via the surrounding properties

Evaluation of Under Penn | Mined Cavern

Track Geometry: meets feasibility-level requirements

Constructability: infeasible to construct without permanently acquiring additional real estate beyond existing station footprint

Fire-Life Safety: unable to comply with requirements (without additional permanent real estate acquisitions beyond the station footprint)

Operational Performance: insufficient trans-Hudson capacity (+20 incremental trains per hour compared to +24 needed)

Future Regional Rail: does not preclude implementation of cross-regional rail

Track	Constructability	Fire-Life	Operational	Future
Geometry		Safety	Performance	Regional Rail
Pass	Fail	Fail	Fail	Pass

Alternative 2: Through-Running | Design Concept 1: Full Reconstruction

Maximizing within footprint: 17 platform tracks + widened platforms



Fully reconstruct tracks and platforms of existing station to optimize for 100% through-running operations Approximately 1,045 columns removed, relocated, or strengthened



Through-Running – Full Reconstruction



Requires removing, relocating, or strengthening approximately 1,045 columns

Structure Affected	No. of Columns to be Relocated	
Eighth Avenue and Subway	81	
Moynihan Train Hall	224	
Farley Office Building	57	

Structure Affected	No. of Columns to be Relocated	
Madison Square Garden	159	
Penn 2	135	
Penn Station	389	

Evaluation of Through-Running – Full Reconstruction

Track Geometry: meets feasibility-level requirements

Constructability: complex structural work disruptive to station operations (estimated 30% reduction in peak period service for approximately 12 years during construction)

Fire-Life Safety: meets feasibility-level requirements

Track	Constructability	Fire-Life	Operational	Future
Geometry		Safety	Performance	Regional Rail
Pass	Fail	Pass		



Requirements for Enabling Potential Regional Metro



(for illustrative purposes only, not based on demonstrated market demand)

Cross-Regional Rail Includes Three Types of Rail Service

- Intercity
- Regional Metro runs through between west side and east side branch lines
- Suburban (commuter) service turns back within the urban core area





Impacts of Through-Running Concepts Beyond Penn Station

Concepts shift property and environmental impacts from Midtown to elsewhere in region at significant cost

- One new yard in Southeast Bronx (in addition to one proposed in Meadowlands) to replace loss of West Side Yard
- Two new multi-track stations for direction reversal (turnback) of commuter/suburban trains outside Manhattan CBD



Meadowlands in NJ

Southeast Bronx in NY


Dwell Time & Platform Re-Occupancy Time

Platform Re-Occupancy Time by Service Type at New York Penn Station (Assuming 100% Through-Running and Major Investment to Provide 30 Ft. Wide Platforms)



Suburban Reverse-Peak Service Constraint

100% THROUGH-RUNNING Intercity **Regional Metro** Yard Suburban Peak Service Suburban Reverse-Peak Hudson River East River Penn Station Tunnels Tunnels 8 Suburban Reverse-Peak Suburban Peak Service Yard 40 **Regional Metro** Intercity 48 TPH Northern NJ Queens/Bronx **Requires 17 Tracks** Reauired Turnback Point Turnback Point **HYBRID OPERATIONS** Intercity **Regional Metro** West Side Yard Suburban Peak Service East River Suburban Reverse-Peak Station Tunnels Hudson River Penn Tunnels Suburban Reverse-Peak Suburban Peak Service Sunnyside Yard 48 **Regional Metro** Intercity

Requires 27-31 Tracks

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AMTRA

Evaluation of Through-Running – Full Reconstruction

Track Geometry: meets feasibility-level requirements

Constructability: complex structural work disruptive to station operations (estimated 30% reduction in peak period service for approximately 12 years during construction)

Fire-Life Safety: meets feasibility-level requirements

Operational Performance: can achieve +24 incremental trans-Hudson trains per hour but unable to maintain existing levels of reverse-peak commuter service

Future Regional Rail: unable to fully accommodate cross-regional rail vision (i.e., regional metro as well as suburban and intercity rail service)

Track	Constructability	Fire-Life	Operational	Future	
Geometry		Safety	Performance	Regional Rail	
Pass	Fail	Pass	Fail	Fail	



Alternative 2: Through-Running | Design Concept 2: Limited Reconfiguration

Proposal based on ReThinkNYC plan: 12 platform tracks + widened platforms



Construct a deck over every other track in station so that the existing platforms can be widened to support simultaneous boarding and alighting

Shorten dwell times and increase train throughput on the remaining 12 platform tracks (compared to 17 platform tracks in Full Reconstruction design concept)

Evaluation of Through-Running – Limited Reconfiguration

Track Geometry: meets feasibility-level requirements

Constructability: meets feasibility-level requirements

Fire-Life Safety: meets feasibility-level requirements

Operational Performance: insufficient trans-Hudson capacity (+16 incremental trains per hour compared to +24 needed) as well as unable to maintain existing levels of reverse-peak commuter service

Future Regional Rail: unable to fully accommodate cross-regional rail vision (i.e., regional metro as well as suburban and intercity rail service)

Track	rack Constructability		Operational	Future	
Geometry	leometry		Performance	Regional Rail	
Pass	Pass	Pass	Fail	Fail	

Summary of Operational Performance Evaluation

		Incremental Trans- Hudson Capacity* (tph)	Maintains Existing Level of Bi-Directional Commuter Service?	Capacity- Constraining Elements	
Alternative 1: Under Penn Station	Design Concept 1: <mark>Underpinning — Single Level</mark>	+14 Yes		Interlocking and vertical circulation to lower platforms	
	Design Concept 2: Mined — Single Level	+20	Yes	Interlocking	
Alternative 2: Through-Running	Design Concept 1: Full Reconstruction	+24	Νο	Tunnels and Station	
	Design Concept 2: Limited Track and Platform Reconfiguration	+16	Νο	Station	

* Compared with capacity of existing North River Tunnel of 24 tph in the peak direction of travel (eastbound in AM peak and westbound in PM peak).

Summary of Overall Evaluation

		Step 1 (Pass / Fail)				Step 2*		
		Track Geometry	Constructability	Fire-Life Safety	Operational Performance	Future Regional Rail Vision	Construction Cost	Construction Schedule
Alternative 1: Under Penn Station	<u>Design Concept 1:</u> Underpinning — Single Level	Pass	Fail	Fail	Fail	Pass		
	Design Concept 2: Mined — Single Level	Pass	Fail	Fail	Fail	Pass	-	•
Alternative 2: Through-Running	Design Concept 1: Full Reconstruction	Pass	Fail	Pass	Fail	Fail		
	Design Concept 2: Limited Track and Platform Reconfiguration	Pass	Pass	Pass	Fail	Fail		

* None of the design concepts evaluated in this report passed the Step 1 technical feasibility screening.

PENN STATION NTRANSIT ZAMTRAK DLong Island Rail Road

NEXT STEPS

Choose your bundle on us

Penn Reconstruction + Penn Capacity Expansion

Elevate Penn Station into a modern, world-class public transportation hub that provides safe and reliable rail service and supports economic development and connectivity throughout the region



Penn Reconstruction (PennR) Improve safety, functionality, and overall customer experience within existing New York Penn Station by increasing passenger circulation space and relieving crowding, improving egress and accessibility, and modernizing outdated and substandard equipment and conditions Penn Capacity Expansion (PennX) Increase rail capacity of New York Penn Station to accommodate a doubling or more of peak-hour trans-Hudson passenger train service in support of the Gateway Program and consistent with the long-term vision established by the NEC FUTURE Program, thereby improving rail reliability, connectivity, operational flexibility, and passenger movement, and encouraging economic growth



NEXT MEETING Tuesday, October 29, 5:00-6:30pm – NYU Wagner

Small Group Discussion

Was any part of the feasibility study analysis unclear?

Is there any additional information you wish the Railroad Partners had included in this briefing?

Do you have any feedback or suggestions regarding the Railroad Partners' planned next steps?





DISCUSSION



Penn Station Working Advisory Group

Meeting Summary October 8, 2024

Overview

This document provides a summary of the proceedings from the second Penn Station Working Advisory Group (SWAG) meeting on Tuesday, October 8th at the Amtrak Executive Conference Center at Moynihan Train Hall.

Meeting Agenda

- Meeting Goals
- State of Regional Rail Service: The Need for Increased Trans-Hudson Capacity
- Doubling of Trans-Hudson Train Capacity at Penn Station: Study Objectives and Findings
- Next Steps
- Small Group & Plenary Discussion

Presentation Summary

Meeting Goals

Amtrak opened the meeting by welcoming attendees and presenting the goals of the meeting, including:

- Present context for and findings of recently released engineering feasibility study: "Doubling Trans-Hudson Train Capacity at Penn Station"
- Explain how the study relates to Penn Station projects
- Answer questions about the study
- Gather feedback on planned next steps

Project Context

NJ TRANSIT provided a review of the long-term vision and near-term capital investment plan for the Northeast Corridor (NEC), including the Gateway Program, Connect 2037 program, and the NEC FUTURE Record of Decision, all of which call for a capacity expansion of New York Penn Station as part of a multi-pronged approach to address the trans-Hudson bottleneck.

The Gateway Program is a series of infrastructure improvements to modernize and expand the constrained 10-mile stretch of the NEC between Newark, NJ and Manhattan. Once Gateway and other supporting projects are complete, the NEC will have the capacity to double rail service between New York and New Jersey from 24 to 48 trains per hour (tph) in the peak direction, taking

maximum advantage of the capacity afforded by the Hudson Tunnel Project. This would provide meaningful connectivity and limit the overcrowding of trains. To do this, substantial construction must be completed at Penn Station and in other parts of the network to accommodate this increase in service.

Capacity for at least 48 trains is needed for the regional system to have full access, reduce auto use (or the growth in auto use, at least), and reduce congestion. The need for 48 trains isn't just about the NEC, it is about the full system and addressing regional ridership demand.

Project Goals

The presentation transitioned to introducing the proposed goals of the Penn Capacity Expansion Project, which include:

- Increasing rail capacity;
- Creating a unified customer experience;
- Developing a stronger connection between Penn Station and the surrounding neighborhood;
- Minimizing impacts on the human and natural environment;
- Supporting local and regional policy priorities; and
- Optimizing project delivery.

Doubling Trans-Hudson Train Capacity at Penn Station: Summary and Methodology

The Railroad Partners provided an overview of the recent engineering feasibility study: "Doubling Trans-Hudson Train Capacity at New York Penn Station" ("feasibility study"), completed by the WSP/FXC consultant team as an early step informing the approach for the Penn Capacity Expansion Project. The feasibility study sought to answer a basic threshold question: "Is it possible to meet the Penn Capacity Expansion Project and NEC/Gateway goals of 48 peak-hour trans-Hudson trains within the existing footprint of Penn Station?" The study found that this would not be possible and that it would be necessary to look at additional expansion options that are not constrained by the existing footprint of the station.

The feasibility study focused on two alternatives with two design concepts each and evaluated their potential to accommodate the trans-Hudson capacity requirements of the Gateway Program, as well as increased service on the Empire Line, without expanding the station's physical footprint.

The study also examined international examples of capacity enhancement including the development of "cross-regional rail" and its potential application at Penn Station. The four design concepts were evaluated with respect to their technical feasibility. The evaluation criteria included: 1) track geometry, 2) constructability, 3) fire-life safety, 4) operational performance, and 5) compatibility with the future regional rail vision that includes creating a regional metro network, maintaining longer-distance suburban commuter service, and expanding intercity service. The study concluded that none of the design concepts met the five established criteria for future evaluation.

Doubling Trans-Hudson Train Capacity at Penn Station: Analysis

A representative from WSP then presented in detail the two design concepts for an "Under Penn Station" alternative and the two design concepts for a "Through-Running" alternative examined within the feasibility study. WSP discussed each solution's track geometry, constructability, fire-life safety, operational performance, and regional metro capacity. A summary of each design solution and its corresponding technical feasibility findings are provided below.

Under Penn Station - Underpinning:

Underpinning would add 10 single-level tracks and platforms below the existing tracks of Penn Station. While underpinning meets track geometry feasibility requirements and does not preclude the future implementation of a regional metro system, underpinning 1,000+ columns is an unprecedented construction challenge that would also require claiming space on the tracks and platforms during construction, leading to a long-term reduction in service. The plan would also require the removal of existing tracks within Penn Station to make vertical circulation possible for passengers moving between the expanded station below the existing concourses, substantially lowering the net increase in total station train capacity.

Under Penn Station - Mined Cavern:

This design solution would also add 10 tracks directly below the existing Penn Station built deeper below grade, avoiding the need for underpinning. The required operational capacity cannot be achieved due to train movement conflicts at the new single-level interlocking west of the station expansion, which would feed the new lower-level platform tracks.

Both concepts for Under Penn Station fail to meet constructability, fire-life safety, and operational requirements. They were eliminated from future evaluation.

Through-Running - Full Reconstruction of Platforms:

Implementing a fully reconstructed through-running system would involve completely reconfiguring the track and platform level of Penn Station, providing 17 new tracks and nine 30-foot-wide platforms. It would require the complete reconstruction of the track and platform level under both Penn Station and Moynihan Train Hall, including the removal, relocation and strengthening of approximately 1,045 structural columns supporting Madison Square Garden, the PENN 2 office building, Eighth Avenue, and the Eighth Avenue A/C/E subway lines, which results in a projected 12-year span of 30% reduction in service. The concept fails to meet the constructability, operational performance, and future regional rail criteria and is therefore eliminated for further study.

Through-Running - Limited Reconfiguration:

A limited reconfiguration addresses the extreme constructability impacts of the above concept by proposing to widen the existing platforms to a width of 30-feet by decking over or eliminating the existing track on one side of each island platform, retaining 12 of the 21 station tracks in their current

locations. This would reduce but not eliminate the need for structural modifications and track realignments under both Penn Station and Moynihan Train Hall.

This concept fails to meet the operational performance requirements as it does not have enough tracks to reliably deliver the additional 24 tph through each Hudson River and East River Tunnel tube (48 tph total in each direction of travel). It also fails the future regional rail criterion. It is therefore deemed technically infeasible and not recommended for further study.

As part of the through-running discussion, additional technical requirements and constraints for enabling a true regional metro system were reviewed. Outside of Penn Station, significant infrastructure would need to be built, including additional tracks, flyover junctions, electrification systems, new stations, and new turn-back facilities in the Meadowlands and in the east Bronx, requiring property acquisition.

Next Steps

A representative from MTA Construction and Development concluded the presentation by reviewing the study's main constraint—working within the existing footprint of Penn Station—and how the feasibility study impacts and informs the Penn Reconstruction project. All attendees were reminded of the next upcoming meeting to take place on October 29th at NYU Wagner.

Small Group Discussion Summary

After the presentation meeting attendees, who were seated in six groups, were asked to discuss the following questions:

- Was any part of the feasibility study analysis unclear?
- Is there any information you wish the Railroad Partners had included in this briefing?
- Do you have any feedback or suggestions regarding the Railroad Partners' planned next steps?

Each table designated a facilitator and a notetaker. Following the discussion period, each facilitator reported to the plenary group the following questions and comments, so that the Railroad Partners can attempt to address questions and topics of interest in future meetings.

Questions and Comments Summary

(Questions and answers have been lightly edited for clarity and length and organized based on discrete topics.)

Process

Questions:

Will the four alternatives be presented under NEPA?

Will other alternatives to the scenarios presented be explored?

What is the next step of this report? What about the general public?

Are there lessons we can learn from this process that can inform the next evaluation?

Comment. The discussion today did not specify construction end dates for each of the design solutions.

Trans-Hudson Train Capacity

Questions:

Is there flexibility on the 48 trains per hour goal?

Why is 24 trains per hour the hard number to meet? Is there flexibility here? Where did this number come from?

What are we going to do if we can't reach the 48 minimum?

How many years would the 30 percent reduction in capacity last?

The dwell times seem extremely long compared to other cities. Why can't we improve dwell times at Penn Station?

Comment: There has been talk of looking beyond the station footprint, but we hope to make efforts to maximize capacity in our existing station no matter what, even if that means not achieving the desired 48 trains per hour.

Through-running

Questions:

What is the Railroad Partners' bottom-line perspective on through-running? Is through-running off the table?

Why can we not use the current West Side and Sunnyside Rail Yards in a 100 percent throughrunning scheme?

Has any analysis been done on what the market might be for through running?

Alternatives Design

Questions:

What are the political ramifications of each of the alternatives? There are a lot. The impact on the surrounding communities will be expansive.

For each of the design solutions, what are the specifics of how service would be affected? Can we get more information on the mined cavern alternative?

Why is it so necessary to widen the tracks? LIRR can run every five minutes or so on narrower tracks. Can this variable be adjusted in future analysis?

Comments:

While many variables were examined, there was no exploration of expanding capacity into the space currently occupied by Madison Square Garden. This is an option that should be explored.

The presentation today did not discuss the possibility of consolidating or making improvements to concourses.

Today's discussion did not cover the "8 tracks 4 platforms" solution from the Gateway plan, or the "southern solution." We are all excited about constructability, and so we need to see an analysis of constructability, including one in which real estate adjacent to Penn Station is acquired. It is important to be able to consider all options.

We are interested in more comparisons with international models, particularly European examples.

Demand Projections and Regional Impact

Questions:

This discussion solely considered peak-hour service at Penn Station. What would a projected non-peak hour throughput look like?

How would an integrated rail network affect existing demand, especially in New Jersey?

How would this impact the Gateway Project?

What is the demand forecast for the regional rail/metro service? For example, are there really people who want to travel from New Rochelle to Ronkonkoma?

Attendance

Station Working Advisory Group

- Craig Lader, Office of the Westchester County Executive
- David Ullman, Office of New York Governor Kathy Hochul
- Maddie DeCerbo, Real Estate Board of New York
- Joe Sgroi, Office of U.S. Senator Cory A. Booker
- Stacey Matlen, Partnership for New York City
- Jonah Rose, Office of New York State Senator Brad Hoylman-Sigal

- Matthew Anderson, Office of New Jersey Governor Phil Murphy
- Carl Wilson, Office of New York City Council Member Erik Bottcher
- Paul Macchia, Madison Square Garden
- Elizabeth Goldstein, The Municipal Art Society of New York
- Brian Fritsch, NYC Transit Riders Council
- Gerard Bringmann, LIRR Commuter Council
- Randy Glucksmann, Metro-North Railroad Commuter Council
- Maddie Baker, 34th Street Partnership
- David Breen, New York City Department of Transportation
- Tom Wright, Regional Plan Association
- Joshua Kraus, NYC Economic Development Corporation
- Chad Purkey, Association for a Better New York (ABNY)
- Madeleine McGrory, Office of Manhattan Borough President Mark Levine
- Jesse Lazar, AIA New York | Center for Architecture
- Gary Prophet, Empire State Passenger Association
- Joe Raguzin, Office of the Rockland County Executive
- Howard Levine, MTA Accessibility Representative
- Todd Goldman, Port Authority of New York & New Jersey
- Pam Sucato, Connecticut Department of Transportation
- Christine Berthet, Manhattan Community Board 4
- Matt Tighe, Office of New York State Assemblymember Tony Simone
- Alex Marinides, Office of New York State Senator Liz Krueger
- Eugene Sinigalliano, 251 West 30th Street Residential Tenants Association
- David Sigman, Manhattan Community Board 5
- Judy Kessler, Vornado Realty Trust
- Ron Hicks, Office of the Dutchess County Executive
- Assemblymember Tony Simone, New York State Assembly District 75
- Ed Hoff, NJ TRANSIT
- Julia Kerson, Office of New York Governor Kathy Hochul
- Sarah Kaufman, Rudin Center for Transportation Policy and Management, NYU
- Jim Mathews, Rail Passengers Association
- Rich O'Malley, New York Building Congress
- Christopher Boylan, General Contractors Association of New York

Project Team

- Julie Cowing AKRF
- Sara Appleton Amtrak
- Petra Messick Amtrak
- Kate Cunningham Amtrak
- Craig Schulz Amtrak
- Laura Colacurcio Amtrak

- Jason Abrams Amtrak
- Max Sokol Amtrak
- Anabel Frias Rosario Amtrak
- Audrey Heffernan HDR
- Temoor Ahmad MTA
- Joe O'Donnell MTA
- Sean Fitzpatrick MTA
- Jessica Mathew MTA
- Jeremy Colangelo-Bryan NJ TRANSIT
- Paul Wycoff NJ TRANSIT
- Todd DiScala NJ TRANSIT
- Ilan Ackelsberg- Public Works Partners
- Joel Hochman Public Works Partners
- Foster Nichols WSP
- Dan Siragusa HDR

PENN STATION TRANSFORMATION

New York Penn Station Working Advisory Group (SWAG)

Tuesday, September 17, 2024

Safety and Security Moment



Wait for permission to re-enter the facility.

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Agenda

Introductions

Station Working Advisory Group Purpose & Process

Moving the Region Regional Rail Needs and Constraints

Penn Station in Context Epicenter of the Regional Bottleneck

Station of the Future Priorities & Projects

Next Steps & Questions

Refreshments



Railroad Partners









Accessibility Advocates



Community Boards



Design Thought Leaders



Rail & Transit Organizations



Civic Organizations



Industry Advocates



Business Organizations

SWAG Members

Serve as champions to help build support for investment in Penn Station

Share perspectives on priorities for future Penn Station complex



Investing in a Modern Complex

Elevate Penn Station into a modern, world-class public transportation hub that provides safe and reliable rail service and supports economic development and connectivity throughout the region



Penn Reconstruction (PennR) Improve safety, railroad operations, and overall experience within existing New York Penn Station by increasing passenger circulation space and relieving crowding, improving egress and accessibility, and modernizing outdated and substandard equipment and conditions Penn Capacity Expansion (PennX) Increase rail capacity of New York Penn Station to accommodate a doubling or more of peak-hour trans-Hudson passenger train service in support of the Gateway Program and consistent with the long-term vision established by the NEC FUTURE Program, thereby improving rail reliability, connectivity, operational flexibility, and passenger movement, and encouraging economic growth



Discussion Topics

- Station priorities
- Project goals, elements, and status updates
- Relevant engineering and design studies
- Project environmental review processes
- Public engagement opportunities





Expectations

- In-person engagement
- Two-way dialogue
- Quarterly meetings through environmental review process
- Input into summary report





Co-Chairs



Regional Plan Association





MOVING THE REGION Regional Rail Needs & Constraints



Source: The Northeast Corridor Commission





Renewing & Expanding NEC Infrastructure for the Future

Source: The Northeast Corridor Commission

Zooming In on New York & New Jersey

Post-COVID Recovery Continues

Amtrak at or above pre-COVID ridership Commuter railroads at 70-100% depending on weekday

More Trains to More Places

Expansion to new markets Additional frequencies

Goal: Make Rail a Mode of Choice

Challenge: Trans-Hudson Constraint



Without additional transit capacity, even with more people working from home, overcrowding on subways, buses, and trains would reach pre-pandemic levels by the time the Hudson Tunnel Project is complete.





Momentum for the Gateway Program

- Major new funding via Infrastructure Investment & Jobs Act
- Bi-State Gateway Development Commission
- Hudson Tunnel Project and Portal North Bridge in active construction
- Sawtooth Bridges, Dock Bridge, Harrison 4th Track approaching construction
- Conceptual design of Penn Station improvements underway



The Hudson Tunnel Project Full Funding Grant Agreement in Place





Construction at Portal North Bridge Nearly 70% Complete



Dock Bridge: Secured \$300 million Fed Funding

Expansion of One-Seat Ride: All Lines, All Days, All Times



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Gateway Increases Off-Peak and Weekend Service

>100% Growth Weekday Off-Peak

>150% Growth Weekend Service





New York & New Jersey: An Economic Partnership

In 2022, New York City employers relied on workers living outside the city to fill more than one in five jobs

Northern New Jersey provides the largest and fastest-growing share of these workers. 276,000 daily commuters in 1990, 447,000 today (62% increase)

\$3.9 billion (7% of total NY tax revenue) in personal income taxes

New Jersey residents drawn to comparatively affordable housing near transit stations with ready access to high paying jobs in New York

New York employers benefit from access to labor



New York City's Suburban Commuters

Sources: "Gateway and the Post-COVID Economy" RPA 2022; "Commuter Dividend" RPA 2023

Principles for the Future



Meet Capacity Goals



Renew Capital Assets



Improve Connectivity



) Partner with Communities



Build Climate Resiliency



Encourage Mode Shift



PENNSTATION NTRANSIT

Choose your bundle on us

PENN STATION IN CONTEXT

Epicenter of the Regional Bottleneck

Penn Station Through the Years



- North River Tunnel, East River Tunnel, and original Penn Station opened 1910 by Pennsylvania Railroad
- Enabled direct rail access to New York City from the south for the first time
- Connected East River Tunnel and North River Tunnel



- Demolished 1963; rebuilt 1968, below Madison Square Garden
- Moynihan Train Hall opened in January 2021
- Currently serving significantly more trains and passengers than anticipated

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Penn Station Today: The Central Hub for the Region

- Owned by Amtrak, operated in partnership with NJ TRANSIT and Long Island Rail Road
- Welcoming Metro-North Railroad via Penn Access project
- A "Station Complex," with opening of Moynihan
- 1,000+ daily train movements involving complex mix of equipment
- 1,000+ employees supporting regional rail service
- Consistent commuting patterns, despite increase in hybrid/remote work
- Major investment needed to modernize and support future service improvements



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The Trans-Hudson Bottleneck

Mahwah

- Most congested section of Northeast Corridor (fewer than optimal 4+ tracks)
 Aging infrastructure operating at max capacity
 - Reliability issues create inconsistent customer experience

NEW YORK

Track outages for maintenance/improvements come at expense of service

New Rochelle, NY Hackensac Passaic North River Tunnel East Rutherfor Hell Gate Bridge vndhurst Montclai MANHATTAN Union City Penn Station NY East River Tunnel Newark, NJ Kearny **NY Penn Station**



New Loche

Mt Vernon

Tunnel Connections + Yards on the East and West



From the West:

- North River Tunnel: 2 Tracks
- Future Hudson River Tunnel: 2 Tracks
- Empire Tunnel: 1 Track

From the East:

• East River Tunnel: 4 Tracks



Tunnel Connections + Yards on the East and West



From the West:

- North River Tunnel: 2 Tracks
- Future Hudson River Tunnel: 2 Tracks
- Empire Tunnel: 1 Track
- West Side Yard

From the East:

- East River Tunnel: 4 Tracks
- Sunnyside Yard

Sunnyside Yard + West Side Storage Yard are critical for efficient operation of Penn Station

Planned Hudson River Tunnel Connection to Penn Station



STATION OF THE FUTURE Priorities & Projects

Current Station Challenges



Growing Demand for Rail Capacity



Confusing Layout with Low Ceilings





Limited Street Presence



Underperforming Equipment & Systems



Outdated Workspaces

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Recent Station Improvements







Widened 33rd Street Concourse







Renovated Ticketed Waiting Areas

Penn Reconstruction 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





Penn Capacity Expansion Goals

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



NEXT STEPS

Tuesday, October 8 – Moynihan Train Hall Tuesday, October 29 – NYU Wagner

QUESTIONS





Penn Station Working Advisory Group

Kickoff Reception Meeting Summary September 17, 2024

Overview

This document provides a summary of the proceedings from the inaugural Penn Station Working Advisory Group (SWAG) kickoff reception on Tuesday, September 17th, at the Amtrak Executive Conference Center at Moynihan Train Hall.

Meeting Agenda

- SWAG Purpose & Process
- Moving the Region: Regional Rail Needs & Constraints
- Penn Station in Context: Epicenter of the Regional Bottleneck
- Station of the Future: Priorities & Projects
- Next Steps and Discussion

Presentation Summary

Amtrak opened the meeting by welcoming attendees, introducing the agenda, and explaining that the SWAG is a joint effort of Amtrak, MTA, and NJ TRANSIT (collectively, the Railroad Partners). The Railroad Partners' goal for the SWAG is to have meaningful conversations in a smaller forum regarding the Railroad Partners' vision for the future of Penn Station with a diverse group of organizations that represent different constituencies and perspectives.

After introductions, the two projects that will be the focus of ongoing discussions with the SWAG were introduced:

- Penn Reconstruction, which is focused on improving safety, platform and access improvements, and the passenger experience in the existing Penn Station facility; and
- Penn Capacity Expansion, which is focused on increasing Penn Station's rail capacity to accommodate at least doubling or more of peak-hour passenger trains between New York and New Jersey.

After introducing the projects, the team previewed anticipated discussion topics for the SWAG. Topics include details on the Railroad Partners' priorities for Penn Station, project goals and scope elements, briefings on relevant engineering and design studies, discussions regarding each project's environmental review process, and public engagement opportunities.

The project team also shared details regarding future expectations for SWAG member participation. The SWAG is advisory in nature and does not have formal decision-making power. The Railroad Partners will request assistance from SWAG members in sharing public engagement opportunities with their constituents, members and/or professional networks. Meetings are in-person, with invites being sent with at least two weeks' notice. Meeting summaries and presentation materials will be available to the public via the project website. The SWAG will meet

two more times before the end of the calendar year and then transition to a quarterly meeting cadence for what is anticipated to be a two-and-a-half-year process through the design and environmental review phase of the projects. Tom Wright, President of the Regional Plan Association and Sarah Kaufman, Director of the NYU Rudin Center for Transportation Policy and Management, will act as co-chairs for this group.

After outlining the expectations for the SWAG, Amtrak, NJ TRANSIT, and MTA delivered remarks contextualizing these projects within the larger needs of the Northeast Corridor and regional rail network, highlighting the essential and connective economic relationship between New York and New Jersey, and acknowledging the need to address the challenge of accommodating current and projected future level of ridership and customer demand.

The SWAG was then presented with immediate next steps, which included notice for upcoming meetings on Tuesday, October 8th (Moynihan Train Hall) and Tuesday, October 29th (NYU Wagner), and an opportunity to ask questions and provide comments to the Partners.

Questions and Comments Summary

(Questions and answers have been lightly edited for clarity and length)

SWAG Process

Q: What would successful engagement with the SWAG look like?

A. We want both formal and informal feedback and will actively ask for input. We want to hear what you think we should be considering and factoring into our decision-making. Successful engagement in this case is where we get to know your priorities and learn what is required to make you proud to call Penn Station your home station. We'll know the SWAG format and environment are working, when everyone is outspoken and sharing their views.

Q. Who can we direct questions to?

A. We will provide one email that will be fielded by Public Works Partners. When you contact the email, all three agencies will receive it.

Relationship Between Projects

Q. It looks like we are talking about two disconnected projects: one about capacity and one about the experience on the ground. Are you going to work on improving the situation in the existing station so we can maximize that asset?

A. Yes, the SWAG will be providing input on two separate projects. The Capacity Expansion Project is focused primarily on the track infrastructure, the station facilities above it, and how we can get more capacity out of the station. Reconstruction is focused on safety, station (not rail) operations, and the passenger experience within the existing station. While separate, both must be designed in parallel to inform each other to ensure the success of each project and ultimate creation of a single, unified complex.

Q. Is it correct to say Penn Reconstruction will not proceed without Penn Capacity Expansion?

A. Not necessarily. Each of these projects has independent utility and could therefore be advanced at different times. But as of now, the two projects are being planned in parallel, as coordination is important to ensure that we end up with a well-designed station with a consistent customer experience.

Q. Some of these projects are taking too long and there is a risk funding will be lost when the Infrastructure Investment and Jobs Act (IIJA) comes up for renewal. How do we go back to Congress with the timeline for this project and still make it compelling? How can it happen fast and affordably, but still in the right way?

A. This is a key question for all three of us, especially as we consider design options for the station. These are enormous projects given the size, state, and age of the infrastructure.

A key challenge for projects is considering potential service outages on nights and weekends. There is a very low tolerance for service changes and outages among passengers, especially since most are commuting to work. The number of projects taking place in the Northeast Corridor right now is unprecedented and all our agencies are dealing with the tradeoff between a fast project timeline and limiting service disruptions. If you create high enough value at the end of the process, then the pain can be worth it. We are very driven by the fact that this is public money, and we need to create the best value for the public as possible.

Penn Reconstruction

Q. Previously, Penn Reconstruction was anticipated to occur when there would be fewer trains coming into Penn Station due to the work from the East Side Access and Penn Access projects. Is there an ideal timeframe you're aiming for now?

A. It is difficult to say at this point, but this is something we are discussing and considering in relation to the project lifecycle. We are currently in the concept development design process, followed by the environmental review. We anticipate this work will take at least a year before construction can occur.

Q. What start date do you expect for Penn Reconstruction?

A. We are working on the design now. This will be followed by environmental review, the procurement process, and then construction. We will have a better sense of timing as we conclude design.

Q. We heard about some potential designs previously, including new levels and an entrance on 8th Avenue. Are those still being considered?

A. At our October 29 SWAG meeting, we will go into more detail around design considerations.

Comment: A key priority for the future station should be making it as easy as possible to navigate the station complex.

Comment: A major priority is the design and the function (i.e., ingress and egress) of the station. We must use this opportunity to make a truly grand station. This is a once in a century opportunity. About a year ago, we were debating

the entrance on 8th Avenue and the idea for an 8th Avenue train hall. When the project is complete, we want everyone to say "Wow!" We should strive for the grandeur of the previous station. We also need to ensure sufficient public engagement during the project. Overall, I hope we move forward with a great design and am excited to work with all the stakeholders. Remember to think on a timeline of decades or a century out from today.

Penn Capacity Expansion

Q: Is Penn Capacity Expansion outside the current station's footprint still on the table?

A.: Yes, we will discuss this in future meetings.

Q.: Is Penn Capacity Expansion only considering projects that are currently planned, such as Penn Access and Gateway? Or do you intend to maximize capacity to make unplanned projects possible? For example, if the Metro-North Hudson Line provided access to Penn Station, will the station be able to absorb this?

A: Penn Capacity Expansion will enable 48 trains per hour crossing the Hudson River to enter the station. We are also considering accommodating additional trains off the Empire Corridor (namely Metro-North's Hudson and Amtrak's Empire services). Empire Corridor frequency is currently limited because it is a single-track tunnel ducking under LIRR's Westside Storage Yard. Our primary goal is meeting future demand across the Hudson River and Penn Capacity Expansion needs to be future proofed for that goal.

Attendance

Station Working Advisory Group

Dan Biederman- 34th Street Partnership Jesse Lazar - American Institute of Architecture New York | Center for Architecture Carol Lopez-Amtrak Accessibility Representative Chad Purkey - Association for a Better New York (ABNY) Anthony Russo - Commerce and Industry Association of New Jersey Gabriella Green - Empire State Development Francesca Giarratana - Office of Hudson County Executive Christine Berthet - Manhattan Community Board 4 Dave Sigman - Manhattan Community Board 5 Quemuel Arroyo - MTA Accessibility Representative Lisa Daglian - Permanent Citizens Advisory Committee to the MTA, Metro North Railroad Commuter Council Andrew Albert - NYC Transit Riders Council Ed Hoff- New Jersey Transit Accessibility Representative Carlo Scissura - New York Building Congress Edith Hsu-Chen - New York City Department of City Planning David Breen- New York City Department of Transportation Joshua Kraus - New York City Office of the Mayor Ferlanda Fox Nixon - Newark Regional Business Partnership Andrew Albert- NYC Transit Riders Council Councilmember Erik Bottcher - NYC Council District 3 Carl Wilson - Office of City Councilmember Erik Bottcher Lizette Chaparro - Office of Manhattan Borough President Mark Levine Madeline McGrory - Office of Manhattan Borough President Mark Levine Dana Adelman - Office of New Jersey Governor Phil Murphy David Ullman - Office of New York State Governor Kathy Hochul Assemblymember Tony Simone: Office of New York State Assemblymember Tony Simone Emma Johnson - Office of New York State Assembly Member Tony Simone Alex Marinides - Office of New York State Senator Liz Krueger Jonah Rose - Office of New York State Senator Brad Hoylman-Sigal Joe Raguzin - Office of Rockland County Executive Joe Sgroi - Office of US Senator Cory Booker Aman Patel - Office of US Senator Kirsten Gillibrand Craig Lader - Office of Westchester County Executive Stacey Matlen - Partnership for New York Todd Goldman - Port Authority of New York and New Jersey Scott Elliot- Progressive Center for Independent Living Jim Mathews - Rail Passengers Association Tom Wright - Regional Plan Association Betsy Plum - Riders Alliance

Sarah Kaufman - Rudin Center for Transportation Policy and Management, NYU Elizabeth Goldstein - Municipal Art Society of New York Mark Diaz - The New School Judy Kessler - Vornado Realty Trust

Project Team

Julie Cowing - AKRF Sara Appleton - Amtrak Petra Messick - Amtrak Kate Cunningham - Amtrak Craig Schulz - Amtrak Laura Colacurcio - Amtrak Jason Abrams - Amtrak Max Sokol - Amtrak Wei Yu - Amtrak Anabel Frias Rosario – Amtrak Ryan Morson – Amtrak Danelle Hunter - Amtrak Temoor Ahmad - MTA Joe O'Donnell - MTA Jeremy Colangelo-Bryan - NJ TRANSIT Paul Wycoff – NJ TRANSIT Todd Discala - NJ TRANSIT Allison Quigney - Public Works Partners Jake Markey - Public Works Partners Joel Hochman - Public Works Partners