Hudson Tunnels
Secaucus, New Jersey to New York City, New York
New Starts Project Development
(Rating Assigned November 2017)

Summary Description	
Proposed Project:	Commuter Rail 6.5 Miles, 1 Station
Total Capital Cost ($YOE):	$13,599.52 Million (Includes $2,170.4 million in finance charges)
Section 5309 New Starts Share ($YOE):	$6,718.16 Million (49.4%)
Annual Operating Cost (opening year 2030):	$3.39 Million
Current Year Ridership Forecast (2016):	189,700 Daily Linked Trips 52,931,400 Annual Linked Trips
Horizon Year Ridership Forecast (2026):	223,200 Daily Linked Trips 62,270,900 Annual Linked Trips
Overall Project Rating:	Medium-Low
Project Justification Rating:	Medium
Local Financial Commitment Rating:	Medium-Low

Project Description: The Port Authority of New York and New Jersey (PANYNJ), in cooperation with the Gateway Program Development Corporation (GDC), New Jersey Transit Corporation (NJ TRANSIT) and the National Railroad Passenger Corporation (Amtrak), propose the construction of a new two-track heavy rail tunnel along the Northeast Corridor from the Bergen Palisades in New Jersey to Manhattan that will directly serve Penn Station New York. The project consists of three major elements: the Hudson Yards right-of-way preservation project, the Hudson Tunnel, and the rehabilitation and modernization of the existing North River tunnel. The project is part of the Northeast Corridor (NEC) Gateway Program, a series of strategic rail infrastructure investments designed to improve current service and create new capacity. Service is planned to operate 24-hours a day, seven days a week, with trains every three minutes during peak periods, every nine minutes during off-peak periods, and every 10 minutes during evenings and weekends.

Project Purpose: The existing 106-year old North River Tunnel is owned by Amtrak. NJ TRANSIT and Amtrak operate approximately 450 trains each weekday through the tunnel that carry over 200,000 daily passenger trips. The North River Tunnel presents reliability challenges due to damage from Superstorm Sandy in 2012, as well as the overall age the tunnel and the intensity of its current use. Significant delays to many trains occur when problems arise. The project is planned to improve the reliability of service in the corridor by addressing the deterioration of the existing North River Tunnel. The project is also meant to preserve the current functionality of Amtrak's NEC service and NJ TRANSIT's commuter rail service and strengthen the reliability of service by providing operational flexibility for trains under the Hudson River between New Jersey and New York.

Project Development History, Status and Next Steps: NJT is currently conducting the environmental review process and expects to select a locally preferred alternative in the first quarter of 2018 and get it adopted into the region's fiscally constrained long-range plan. A draft

Environmental Impact Statement (EIS) was published in June 2017. NJT anticipates completion of the environmental review process with publication of a Final EIS and issuance of a Record of Decision in March 2018, entry into Engineering in the second quarter of 2018, receipt of a Full Funding Grant Agreement in early 2019, and to have both the new tunnel and the rehabilitated tunnel open for revenue service by 2030.

Locally Proposed Financial Plan		
Source of Funds	**Total Funds ($million)**	**Percent of Total**
Federal:		
Section 5309 New Starts	$6,718.16	49.4%
Local:		
Railroad Rehabilitation and Improvement Financing (RRIF) Loan Repaid with PANYNJ Funds	$2,314.98	17.0%
RRIF Loan Repaid with Project Revenues	$1,972.52	14.5%
GDC Funds from Project Revenues	$1,415.80	10.4%
Unspecified Private Capital Sources Repaid with Project Revenues	$1,000.00	7.4%
GDC Funds from PANYNJ Payments	$178.06	1.3%
Total:	**$13,599.52**	**100.0%**

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

NJ-NY, Secaucus, Hudson Tunnel
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Factor	Rating	Comments
Local Financial Commitment Rating	**Medium-Low**	
Non-Section 5309 New Starts Share	**N/A**	Federal Public Transportation Law, 49 USC 5309(q)(3), requires FTA to evaluate the proposed share from sources other than the Section 5309 Capital Investment Grants (CIG) program based on the unified finance plan for the entire joint public transportation and intercity passenger rail project. The proposed CIG share is 45.2 percent of the total joint intercity rail and public transportation project cost of $14.9 billion. However, the project does not qualify for a one-step rating increase since the project financial plan is rated Medium-Low.
Project Financial Plan	**Medium-Low**	
Current Capital and Operating Condition (25% of local financial commitment rating)	Medium	• The average age of the New Jersey Transit (NJT) bus fleet is 7.2 years, which is in-line with the industry average. • The most recent bond ratings for the Port Authority of New York and New Jersey (PANYNJ), issued in November 2016, are as follows: Moody's Investors Service Aa3, Fitch's AA- and Standard & Poor's Corporation AA-. • NJT's current ratio of assets to liabilities as reported in its most recent audited financial statement is 0.81 (FY2016). • There have been no NJT service cutbacks or cash flow shortfalls in recent years.
Commitment of Capital and Operating Funds (25% of local financial commitment rating)	Low	• None of the non-Section 5309 New Starts funds are committed or budgeted. All of the funds are planned or uncertain. Sources of funds include Railroad Rehabilitation and Improvement Financing (RRIF) loan proceeds repaid by PANYNJ funds, RRIF loan proceeds repaid by unspecified local revenue, private capital, PANYNJ funds, and unspecified local revenue. • Approximately 66 percent of the funds needed to operate and maintain the NJT system in the first full year of operation are committed or budgeted, and the rest are considered planned. Sources of funds include Federal Section 5307 Urbanized Area Formula Program funds and Section 5337 State of Good Repair funds used for preventive maintenance, NJ state operating assistance from the general fund, casino revenues, NJ Turnpike revenues, and NJ Transportation

		Trust Fund revenues, and passenger fares and other sources of system-generated operating revenues.
Reasonableness of Capital and Operating Cost Estimates and Planning Assumptions/Capital Funding Capacity (50% of local financial commitment rating)	Low	• Assumed growth in capital revenues is very optimistic compared to recent historical experience, and the CIG assumptions regarding both total amount and annual appropriations are very optimistic. • The capital cost estimate is optimistic. • Regarding assumed growth in operating revenues, NJT farebox collections are optimistic and NJ state operating assistance is optimistic compared to recent historical experience. • Operating cost estimates are reasonable compared to recent historical experience. • No funding is currently available to cover Project cost increases or funding shortfalls, and the PANYNJ capital plan specifically declares that PANYNJ will not be responsible for funding Project cost increases. NJT does not have access to funds via additional debt capacity, cash reserves, or other committed funds to cover annual system wide operating expenses in excess of the current forecast.

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LAND USE RATING: Medium-High
The land use rating reflects population density within one-half mile of proposed stations, employment served by the line, and the share of legally binding affordability restricted (LBAR) housing in the station areas compared to the share in the surrounding county. • The Penn Station area's existing population density is 47,796 persons per square mile, which corresponds to a High rating according to FTA benchmarks. Total employment served is 331,934, corresponding to a High rating. Parking costs in the Manhattan central business district are over $20 per day, corresponding to a High rating. The project sponsor did not provide data on LBAR housing, leading to a Low rating. • The Penn Station area is one of the most dense commercial and residential locations in the United States. The station provides access to numerous intra-city and inter-city rail services and supports more than 650,000 visitors and commuters per day. The majority of buildings are greater than 20 stories, going as high as 102 stories, with minimal building setbacks. • The station area has a grid structure with block lengths of 250 feet to 900 feet, and wide sidewalks. Numerous roads have bicycle routes, and there is limited to no on-street parking.
ECONOMIC DEVELOPMENT RATING: Medium-High
Transit-Supportive Plans and Policies: Medium
• *Growth Management:* The primary guide for regional growth management is the nonprofit Regional Plan Association's Regional Plan for New York, an advisory strategic plan. New York City's citywide strategic plan targets development, including a major expansion in the city's housing supply, in transit-accessible corridors. • *Transit-Supportive Corridor Policies:* Five small-area planning efforts around Penn Station over the last 20 years have informed higher-density rezonings. The city's street and development design guidelines support pedestrian- and transit-friendly development. • *Supportive Zoning Regulations Near Transit Stations:* Zoning for the Penn Station area generally allows high densities per FTA benchmarks, as well as mixed uses. Many portions of the station area are exempt from parking requirements • *Tools to Implement Land Use Policies:* Programs include density bonuses, transfer of air and development rights, district improvement bonus mechanisms, and tax incentives.
Performance and Impacts of Policies: Medium-High
• *Performance of Land Use Policies:* The Hudson Yards project, which is currently underway, includes the redevelopment of 28 acres of underutilized land into a high-density, mixed-use environment with up to 12,600 new housing units and 29.6 million square feet of commercial space. A few other high-rise mixed-use developments are proposed for the station area. • *Potential Impact of Transit Investment on Regional Land Use:* The Penn Station area still has some underutilized land that could be redeveloped at the high densities permitted by zoning. Despite being densely developed, population and employment in the station area are expected to grow further given the area's access to intra-city and inter-city rail services.
Tools to Maintain or Increase Share of Affordable Housing: Medium-High
• New York City targets the construction of 200,000 new affordable housing units over the next 10 years. The city has adopted inclusionary zoning requirements, in-lieu fees and affordable housing density bonuses into its zoning ordinance. Financial tools include tax-exempt bonds issued by the Housing Development Corporation and proposed increased capital contributions by the city. In the Penn Station area, 600 units of affordable housing were recently completed and a further 1,250 are included in planned developments.

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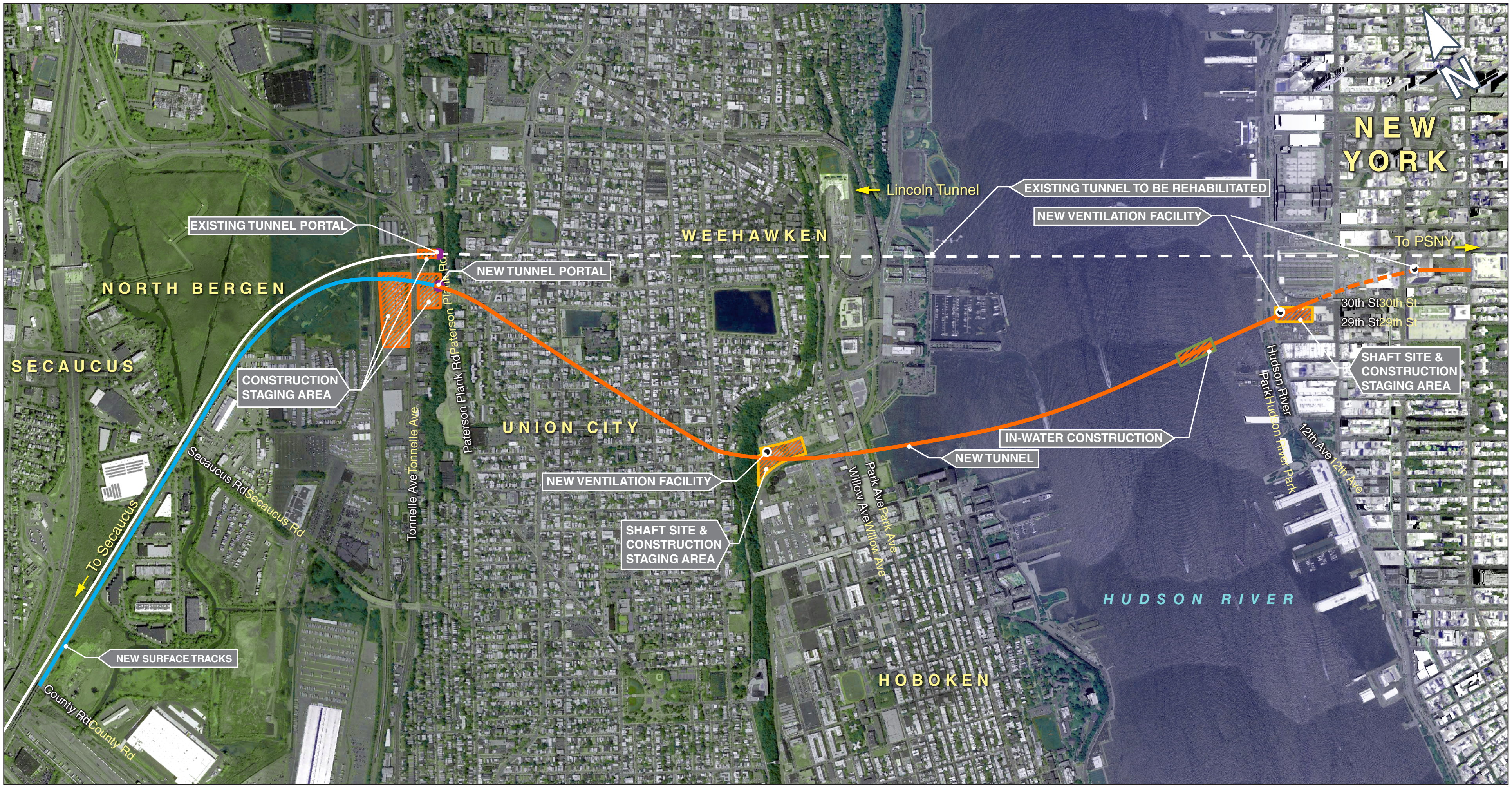

Existing Northeast Corridor

Existing North River Tunnel

Amtrak Right-of-Way Preservation

Tunnel Alignment

Tunnel Portal

New Surface Tracks

Ventilation Shaft Site & Construction Staging Area

Construction Staging Area

In-Water Construction

New Ventilation Facilities

HUDSON TUNNEL PROJECT