Agenda

Program Update

Analysis of Infrastructure Failures & Train Delays in Gateway Territory

Resolution

• #0719-01: Hudson Tunnel Project – Endorsement of Amendment To Engineering Services Contract for Development of Contract Package Procurement Documents
Gateway Program Update

GDC and its Project Partners Continue to Take Actions Within Their Control to Advance the Gateway Program

PROGRAM GOVERNANCE
- Passed the Gateway Development Commission Act in New York & New Jersey to create a stronger GDC

PORTAL NORTH BRIDGE
- NJ TRANSIT, in cooperation with the Project Partners, is preparing for the FY2021 FTA Capital Investment Grant Program Rating Submittal

HUDSON TUNNEL PROJECT
- Progressing Value-for-Money Analysis
- Developing Contract Procurement Documents to maintain an expedited project schedule and be prepared to commence Hudson Tunnel Project procurement activities
- Advancing the Supplemental Geotechnical Investigation Phase 2 Program
- PANYNJ, in cooperation with the Project Partners, is preparing for the FY2021 FTA Capital Investment Grant Program Rating Submittal
Analysis of Major Infrastructure Failures & Train Delays in Gateway Territory
Analysis of Official Northeast Corridor Delay Data
→ 85 “Major Incident” Days at Portal Bridge or Hudson Tunnel (2014-2018)
→ Major Incident Day = 5+ hours of delay to Amtrak and/or NJ TRANSIT trains
→ Analysis: Major Incidents Occurred More than Once/Month on Average

85 Major Incident Days accounted for 35% of all train delays, almost 2,000 hours in lost time/productivity

The rate of delayed trains doubled on Major Incident Days
- Average day – 11.8% of trains are late
- Major Incident Day – 22.6% of trains are late

Analysis performed by staff of the NEC Commission at the request of Amtrak and NJ TRANSIT
- 3 million train movements and 750,000 daily delay records
- Focus on ~1.5 million movements in Gateway territory
- Additional analysis needed to quantify ripple effect on NEC
Multiple Problems Cause Delays in the Tunnel

Overhead power failures, track conditions, and signal problems were the primary causes of North River Tunnel Major Incident Days

65 major incident days (2014-2018) involving the North River Tunnel,

- Delaying 2,500 Amtrak and NJ TRANSIT trains for nearly 66,000 minutes (1,100 hours)

Catenary or transmission power failures generated 35% of the NRT delay minutes in the 65 major incident days

Traction power incidents were more frequent but catenary wire incidents result in more minutes per delay

- Damaged wire and pantographs must be cleared before trains can run

Causes of Major Incidents in North River Tunnel

- Overhead Power: 35%
- Track Conditions: 31%
- Signal Problems: 13%
- Other: 21%

Overhead power failures, track conditions, and signal problems were the primary causes of North River Tunnel Major Incident Days.
Multiple Causes of Delays in the North River Tunnel

Overhead power failures, track conditions, and signal problems were the primary causes of North River Tunnel Major Incident Days.

- Cable Failures
- Ice Buildup
- Corroded Rails
- Signal Problems
- Salt Chemicals in Rock Ballast
- Confusing the Signal System
- Broken Rails
Portal Bridge Delays Trains Even When it Works Properly

Routine Portal Bridge openings caused delays on 230 days, affecting 1,000 trains and causing 230 hours of train delay

Major Incident Days caused by Portal Bridge are almost always the result of its failure to lock after having opened

There were 18 Major Incident Days caused by Portal Bridge between 2014-2018

• 780 hours of Amtrak and NJ TRANSIT delays

**BOTTOM LINE**

Delays Wreck Havoc on People’s Lives, Cause Frustration, Erode Trust
Board Resolution
Hudson Tunnel Project – Endorsement of Amendment to Engineering Services Contract for Development of Contract Package Procurement Documents

The Amendment will allow the Gateway Partners to maintain an expedited project schedule and be prepared to commence Hudson Tunnel Project procurement activities.

Expected Tasks:

- Continued Value-for-Money Analysis Support
- Contract Package Procurement Documents
- Risk Mitigation Development
- Project Engineering and Technical Support

Diagram:

Preliminary Engineering

To Support Environmental Review

Extended Preliminary Engineering

To Support 30% Design

Procurement Preparation

To Support Procurement Decisions

Final Design and/or Construction

(Delivery Method TBD)

Final Design depends on Project Delivery Method(s) Chosen during Procurement Preparation Phase (e.g. DB, DBB)
GDC is a not-for-profit corporation overseeing the development of the Gateway Program in cooperation with Amtrak, NJ TRANSIT, and the Port Authority of NY & NJ.