

Impacts of Superstorm Sandy

PATH and World Trade Center Transportation Hub

APTA RAIL CONFERENCE – JUNE 2-5, 2013

PATH: Impact of Superstorm Sandy

- Unprecedented and extensive flooding
 - World Trade Center Station
 - Exchange Place
 - Hoboken Station
 - Newport Station
 - Tunnels
 - Harrison Car Maintenance Facility
- Extensive and corrosive damage to equipment with the majority of substations compromised as well as signal and control equipment
- Widespread power outages



CCTV at Hoboken
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PATH: Pre-Storm Preparations and Storm Recovery

- Pre-storm preparation included sandbagging operations and placement of Jersey barriers in low lying areas
- Storm response included a massive dewatering effort, structural and safety assessments and restoration of power
- Dewatering is now completed. Power washing of tunnels underway



PATH: Storm Response and Recovery

- First priority is safety
- Repairs, inspections and test runs conducted after power restoration to provide Journal Square to 33rd Street service
- Coordination with the FTA and FRA
- Service restored from Journal Square to 33rd Street on November 6th and from Newark to 33rd Street on November 11th
- Service restored to 9th Street on November 12th



PATH: Plan for Restoration of Full Service

- Next steps include restoring service to World Trade Center, Exchange Place, and Hoboken
- However, restoration of switching and signaling functionality needed in Caisson 2 and 3 to restore Hoboken service. Port Authority is working with outside firms to restore functionality at this critical inter-locking junction urgently
- PATH and executive management daily coordination on resources needed to provide full service in the coming weeks
- FTA assistance on breakers and other parts of vital importance

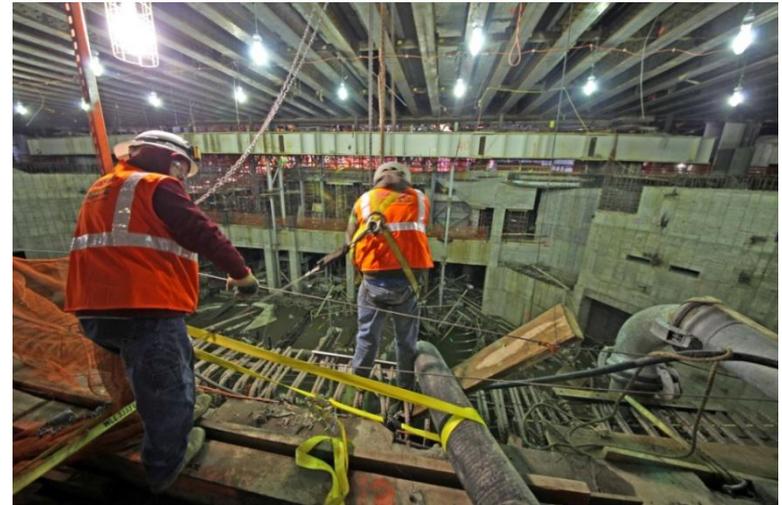
WTC Transportation Hub: Impact of the Superstorm

- Extensive flooding throughout the World Trade Center Site, including the WTC Transportation Hub
- Over 125 million gallons of salt water from the Hudson and East Rivers into the 16-acre site
- The Hub Transit Hall had one of the largest volumes of water
- Widespread power outages



WTC Transportation Hub: Status Update

- Dewatering of the site was a massive undertaking and was crucial to assess damage. Pumping operations continued at all hours
- WTC PATH track bed had completed pumping operations on November 3rd
- By November 5th, 95% of water from the surge was pumped from the total World Trade Center site.



WTC PATH HUB Mezzanine Hall



WTC Transportation Hub: Status Update

- Clean up operations continue and construction is underway again



WTC PATH Transit Hall, Arches and Tunnel F