NJ TRANSIT BAY HEAD SUBSTATION REPLACEMENT PROJECT
QUESTIONS AND ANSWERS

1. How was the substation replacement location selected for the project? How large will the replacement substation be?

The substation replacement is being reconstructed on the same site as the current rail yard substation. The replacement substation structure is 141 feet, 8 inches long by 40 feet wide and 38 feet high. The length of the facility was increased to meet Bay Head Borough’s request to reduce the building’s height.

Construction on the current substation site both maintains needed operational proximity of the substation within the rail yard and eliminates potential environmental disturbance in other areas (such as the forest cover in the “loop”).

As part of project planning, NJ TRANSIT reviewed a number of alternative sites, none of which were deemed feasible, due to potential environmental or community impacts, or due to failure to fit within the project’s operations and need criteria.

Eliminated alternatives included a site at the intersection of the North Jersey Coast Line right-of-way (ROW) and Sea Avenue (Route 35), approximately 1,600 feet (or about one-third of a mile) from the current substation site. This alternative was eliminated in part because it would require connecting power distribution lines to the yard either by use of 65-foot poles, with multiple arms, along the ROW (in order to provide needed clearance above rail cars), or in underground conduit ducts next to the ROW. NJ TRANSIT does not typically site underground power lines along railroad ROW, due to interference with existing rail signal and communication lines and the potential to create a hazardous condition for NJ TRANSIT repair staff.

The “replace in place” project plan was reviewed and approved by the Federal Transit Administration (FTA) and received all required federal and state approvals and permits.

2. What are the associated improvements related to this project?

Superstorm Sandy-damaged equipment is being replaced, including electrical switchgear, transformers, emergency generator, electrical panels, conduits, and cables. New service lines for the rail yard wayside power system (which allows diesel locomotive engines to be shut down when not in service) also are being installed.
3. Did the Federal Transit Administration (FTA) fund the project?

The FTA is funding 100 percent of the project costs.

4. Is there an FTA deadline for this project?

Section 904(c) of the Disaster Relief Appropriations Act requires that funds received under the Disaster Relief Appropriations Act be expended within two years of obligation. The federal Office of Management and Budget (OMB) issued a waiver of this requirement for grants awarded under the FTA Emergency Relief Program, but also stated an expectation that federal agencies and grant recipients will work together to ensure that funds are expended in a timely manner.

5. Did NJ TRANSIT work with Bay Head Borough on the substation project?

NJ TRANSIT has had extensive discussions with Bay Head officials and with local legislators since 2013, when initial planning began for the substation replacement project. This included a number of discussions on Bay Head’s concerns over the design and appearance of the new substation. In response to Borough concerns, NJ TRANSIT, with input from the State Historic Preservation Office (SHPO), lowered the height of the new building and modified the exterior appearance in order to better align with community preferences.

In October 2016 NJ TRANSIT held an open house to inform the public about the project. On February 13, 2020, NJ TRANSIT, working with the Borough, also held an evening public information session on the project. NJ TRANSIT has continuously worked with Bay Head Borough throughout the project’s development.

6. Does the height of the replacement substation conform to Bay Head Borough zoning requirements?

Yes, and NJ TRANSIT worked with Bay Head Borough officials on architectural measures to address building height concerns. A masonry facade of the building was held to the minimum height necessary to protect the electrical equipment inside the structure and an aluminum equipment screen was added to screen roof top mechanical units. The equipment screen will be painted to match the color of the brick.

7. Is NJ TRANSIT required to submit the project site plan to the Borough of Bay Head Planning Board for Capital Projects Review?

No. As an instrumentality of the State of New Jersey, NJ TRANSIT does not require approvals by local planning or other boards.
8. Did the State Historic Preservation Office (SHPO) review and approve this project?

Yes. In addition, NJ TRANSIT, SHPO, and Bay Head Borough officials discussed the building’s appearance and agreed upon a darker-colored brick for the building facade.

9. Did NJ TRANSIT provide notification to residents in 2016?

Certified notices were mailed to all property owners within 200 feet of the site of the proposed regulated activity. Although regulations require notification only to those property owners within 150 feet of such a project, NJ TRANSIT, working with Borough officials, increased the notification area in order to reach all property owners within 200 feet of the work site. The Bay Head Tax Assessor provided the list of property owners within the notification area.

10. Did NJ TRANSIT update Bay Head Borough when the project was scheduled to begin?

Yes. The substation replacement project was originally scheduled to begin construction in 2017. However, procurement issues delayed the start of construction until this year. NJ TRANSIT made every effort to meet with Bay Head Borough officials and update them on the next steps soon after the contractor was issued a formal notice to proceed with the project in November 2019. Unfortunately, due to the holidays a meeting with the Borough was unable to be scheduled until early January 2020. On January 8, 2020, NJ TRANSIT met with Bay Head Borough officials and other interested parties to review the substation project construction schedule. On February 13, 2020, NJ TRANSIT participated in an evening public information session in Bay Head, organized by Mayor Curtis, to listen to community concerns and answer questions about the replacement project.

11. Can the project site plans be viewed by the public?

Access to site plans of this nature are normally restricted due to Homeland Security concerns. NJ TRANSIT is currently reviewing whether these plans can be released to the general public with redactions.

12. Why does the rail yard require electric and diesel power?

The new substation will provide electric power to the rail yard and all facilities and equipment in the rail yard used to operate and maintain the trains, including wayside power. Wayside power is the electrical system that powers components on the locomotives overnight, allowing their diesel engines to be shut down. This reduces both noise and emissions. The emergency generator is a backup power supply for life-safety systems at the rail yard if power from the local utility grid is lost.
13. Why do you need an emergency generator?

There has been an emergency generator at the yard for decades. The emergency
generator powers critical life safety equipment and areas that are essential for
employee safety and well-being in case of a local utility grid power failure.

14. Is the emergency backup generator secure?

NJ TRANSIT has had an existing emergency generator system at Bay Head Rail Yard
for many years without incident. All necessary and required containment systems will
continue to be included in the replacement emergency generator system and the facility
will remain compliant with all state and federal requirements.

15. Can the diesel emergency generator run on natural gas?

New Jersey Department of Community Affairs (DCA) permitting for generators
supporting life-safety systems has required quick-cycling diesel engines to rapidly
respond to a power outage.

16. Did NJ TRANSIT remediate the fuel site at the rail yard?

Yes. In 2004 NJ TRANSIT removed contaminated soil from the rail yard and operated a
fuel recovery system for a decade to capture any contaminated liquids. As a result of
these efforts, only residual traces of contamination remain in one small area.

17. Is NJ TRANSIT in compliance with the Bay Head Borough fueling
agreement?

Yes. The new diesel emergency generator simply replaces an existing emergency
generator that has been on the substation site for many years. Except in times of loss of
local utility power, an emergency generator is operated only once a month for testing
and scheduled maintenance.

18. What are the proposed utility pole heights and where will the new poles be
installed?

Poles vary in height from 56 feet to 67 feet to provide the required electrical clearances
over rail cars and equipment. An aerial photograph is included that indicates the new
pole locations.
19. Can the new power lines be put underground?

No. As indicated in answer No. 1, NJ TRANSIT does not bury high voltage lines adjacent to railway tracks. The infrastructure and manholes required to place the lines underground will interfere with existing rail signal and communication lines and create a hazardous condition for NJ TRANSIT repair staff. The power lines running in the yard are medium voltage lines to support wayside power and rail car maintenance, and do not require large conduits and manholes.

20. Will the electric connection divert electricity from the community?

No. The local utility grid serves both residential and non-residential power needs.

21. Did NJ TRANSIT comply with and meet all current environmental regulations for the substation replacement project?

NJ TRANSIT obtained all required environmental permits and is in compliance with all applicable environmental regulations.

22. Does the substation replacement project impact area water quality, wildlife and vegetation?

Because NJ TRANSIT is reconstructing the substation on the same site as the current substation, minimal clearing and land disturbance are associated with this project. There will be no significant or adverse effects to water quality, wildlife or vegetation. Electrical substations do not produce liquid or any other discharges. Storm water runoff from the rail yard as a whole will continue to be filtered by the existing detention basin on the south side of the yard.

23. Will vegetation be planted in the project area?

Salt-tolerant groundsel tree (Baccharis halimifolia) will be planted. Groundsel tree can compete with the non-native Phragmites that grow in the area.

24. Will the project have an impact on the wetlands?

A small area of wetlands and transition area will be temporarily disturbed during project construction. All temporary disturbances will be restored and replanted with native herbaceous and woody vegetation. The project will permanently disturb 120 square feet of non-contiguous wetlands (an area that, in total, is slightly smaller than three king-sized mattresses), which will be mitigated by planting with salt tolerant groundsel tree (Baccharis halimifolia), because it can compete with the adjoining Phragmites that dominates the manmade detention basin. The shrubs and native seeds that are planted must come from an approved wetland plant nursery.
25. Will the rail yard storm water management system be impacted by the project?

No. All operations will be in compliance with federal, state, and local water quality requirements.

26. Will the project affect Twilight Lake?

No impacts to Twilight Lake are anticipated.

27. Will NJ TRANSIT clear any dead vegetation along the railroad right-of-way?

NJ TRANSIT has removed several dead trees along the railroad right-of-way (ROW) in recent years and will continue to do so as needed. Residents should contact NJ TRANSIT Customer Service at 973-275-5555 to notify us of vegetation within NJ TRANSIT’s ROW that requires clearing or removal.

28. Did NJ TRANSIT approve the Bay Head application for the NJ TRANSIT Adopt-a-Station Program?

NJ TRANSIT approved the renewal of the L. Ron Hubbard Foundation’s application for the Adopt-a-Station Program for Bay Head Station.

April 1, 2020