

10.1 INTRODUCTION

This chapter examines the potential for the Build Alternative to impact traffic and public transportation in the study area. It includes an analysis of the potential traffic and public transportation impacts related to the operation of the proposed Project. Under emergency conditions, the proposed Project would result in continued rail public transportation operations similar to normal conditions. Consistent with the Project purpose and need, this would be a net beneficial effect of the project. Under normal operating conditions, there will be no change to the number or frequency of trains as a result of the proposed Project. There will be no adverse impact to road traffic, public transportation or other mode from installation of electrical lines or new substations, once the project is operational. The traffic evaluation included in this chapter discusses impacts of the proposed Project as a whole since there would be no traffic fluctuations as a result of installation of electrical lines, new substations or the nanogrid at HBLR Headquarters.

10.2 AFFECTED ENVIRONMENT

10.2.1 Traffic

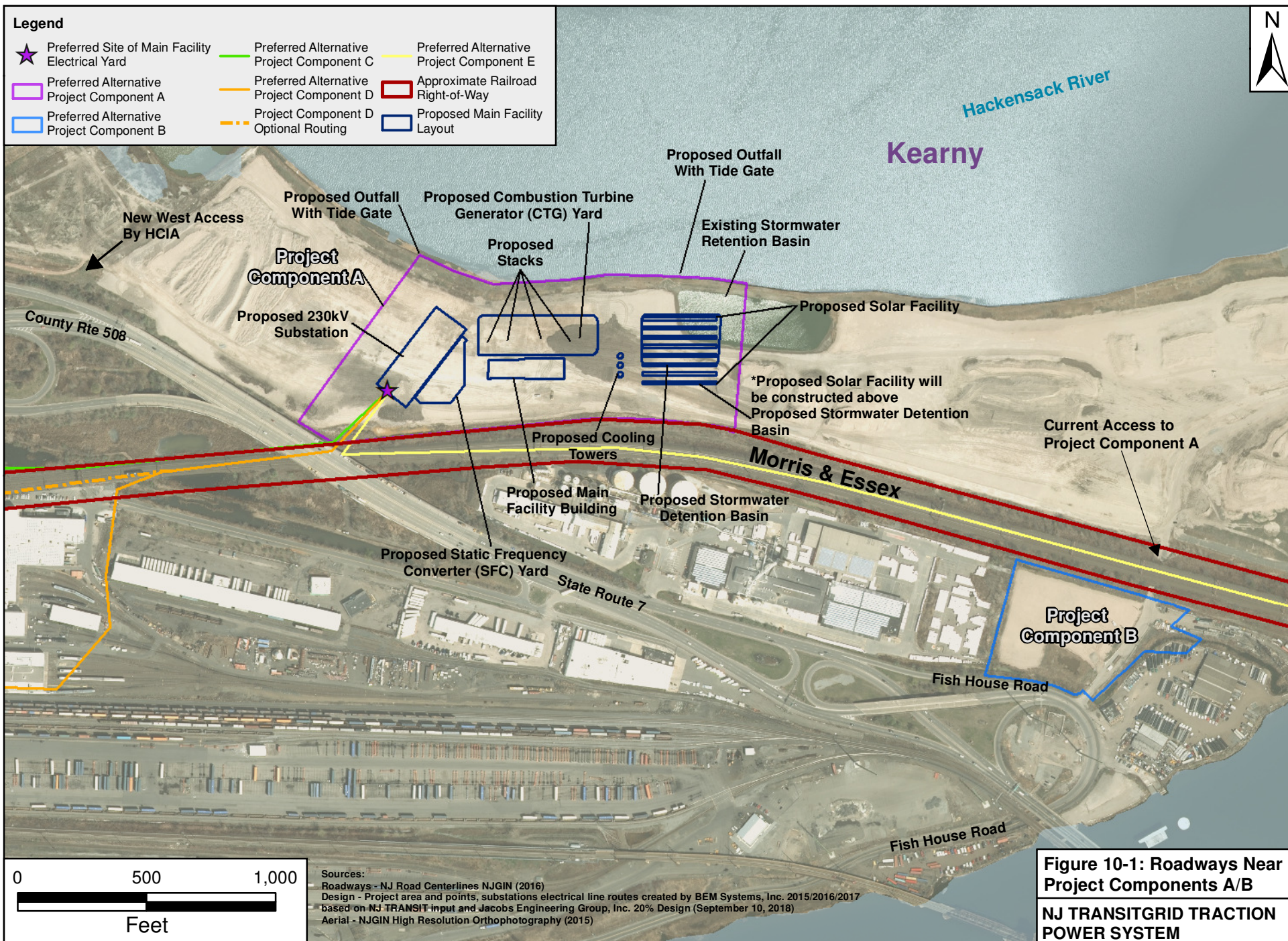
Route 7

Route 7 is an Urban Principal Arterial running north-south in Hudson County (see Figure 10-1). Its southern terminus is at the recently reconstructed interchange with Route 1&9 in Jersey City. North from that point, Route 7 crosses the Hackensack River via the Wittpenn Bridge (construction for bridge replacement is currently underway) where it enters into the Town of Kearny and passes the Main Facility site and the six-acre parcel (Preferred Alternative Project Components A and B). From the interchange with Route 1&9 in Jersey City, past the Main Facility site to the interchange with Route 508, Route 7 is known as the Newark-Jersey City Turnpike. Further north, Route 7 is also known as the Belleville Turnpike and accesses the northern portions in Kearny before crossing the Passaic River into Belleville.

Route 7 provides two lanes for each direction of travel over the Wittpenn Bridge, three lanes in each direction between the interchanges for Fish House Road (County Route [CR] 659) and Newark-Jersey City Turnpike (CR 508), and one lane in each direction on the Belleville Turnpike section of the roadway. The posted speed limit varies between 35 and 50 mph along the Route 7 corridor. Near the Main Facility site, the speed limit is 50 mph.

The NJDOT is currently constructing the Wittpenn Bridge Replacement Project, which involves replacing the Route 7 bridge over the Hackensack River. Work is anticipated to be completed by the summer of 2022. Infrastructure improvements associated with the project include:

- New vertical lift bridge situated to the north of the existing bridge;



- Route 7 realignment to the north of the existing roadway;
- Improvements to the Route 7 interchange with Fish House Road; and
- New connection ramps in Jersey City.

Traffic data for Route 7 was obtained from the NJDOT Traffic Count Reports program and are summarized in Table 10-1.

Table 10-1 Route 7 Traffic Data - 2013 and 2017

				Peak Hour Traffic					
				AM			PM		
Roadway	Direction	Lanes	AADT ¹	Time	Volume ²	Status	Time	Volume ²	Status
Route 7 ³ (Newark-Jersey City Turnpike Section)	Northbound	3	26,200	7-8 AM	1,600	Under Capacity	4-5 PM	2,400	Under Capacity
	Southbound	3	30,000	7-8 AM	2,600	Under Capacity	4-5 PM	1,900	Under Capacity
Route 7 ⁴ (Belleville Turnpike Section)	Northbound	1	8,900	6-7 AM	1,000	Under Capacity	4-5 PM	600	Under Capacity
	Southbound	1	8,500	6-7 AM	500	Under Capacity	4-5 PM	850	Under Capacity

Source: NJDOT Traffic Count Reports 2013 and 2017. Traffic counts for 2017 provided by NJDOT staff via e-mail on August 30, 2018.

¹ – Annual Average Daily Traffic

² – Vehicles per hour

³ – NJDOT Traffic Counts for 2013

⁴ – NJDOT Traffic Counts for 2017

County Route 659

Fish House Road, also known as Hudson CR 659, is an Urban Minor Arterial running east-west in Kearny. The eastern terminus of the roadway is located at its interchange with Route 7. Heading west, CR 659 is known as Pennsylvania Avenue and then Central Avenue before its western terminus with US Route 1&9 Truck Route.

Fish House Road generally provides one lane for each direction of traffic, has a posted speed limit of 25 mph, and services predominantly industrial land uses. The truck entrance to the CSX South Kearny Yard is located along the roadway and generates heavy vehicle volume activity to the area.

A traffic count from 2017 was obtained from the NJDOT Traffic Count Reports program, and is summarized in Table 10-2.

Table 10-2 County Route 659 Traffic Data - 2017

				Peak Hour Traffic					
				AM			PM		
Roadway	Direction	Lanes	AADT ¹	Time	Volume ²	Status	Time	Volume ²	Status
County Route 659	Eastbound	1	6,100	6-7 AM	370	Under Capacity	4-5 PM	610	Under Capacity
	Westbound	1	5,400	6-7 AM	500	Under Capacity	4-5 PM	400	Under Capacity

Source: NJDOT Traffic Count Reports 2017. Traffic counts for 2017 provided by NJDOT staff via e-mail on August 30, 2018.

¹ – Annual Average Daily Traffic

² – Vehicles per hour

The traffic volumes presented in this analysis – a combination of 2013 and 2017 data sets – are within a reasonable period of 5 years of the current 2018 analysis year being addressed in this DEIS. The study roadways serve the travel needs of existing or potential future in-fill development along the corridors, and between origins and destinations that are densely developed, mature urban centers. It is unlikely that significant growth in traffic volume has occurred since 2013 that has reduced the ability of these roadways to adequately accommodate travel demand. Therefore, the volume data represented by these years are considered to be applicable and acceptable for the purposes of this analysis. The proposed Project area roadways are reportedly operating with excess capacity under typical conditions.

Redevelopment Area and Route 7 Access

As explained in Chapter 2, HCIA is in discussions with the NJDOT regarding a plan to provide ingress and egress from the Redevelopment Area to Route 7 for large/commercial vehicles. Options reviewed have included connecting to Route 7 via the southwestern gate area and use of a bed of a former rail line, owned by HCIA, for a road through the Standard Chlorine Chemical Company (SCCC) site connecting to an existing paved driveway to Route 7. Currently, access to the Main Facility site is via an underpass of the Morris & Essex Line near Fish House Road (see Figure 10-1).

10.2.2 Passenger Rail Operations

Several passenger rail lines traverse the study area. Amtrak's Northeast Corridor is an electrified regional rail line servicing the northeast United States. The line is powered by an overhead catenary system for the entire corridor. NJ TRANSIT operates some of its commuter rail service on a portion of the Northeast Corridor for access to New York Penn Station. The Northeast Corridor is located in proximity to the existing Amtrak Substation No. 41 and proposed location of the new Kearny Substation (Preferred Alternative Project Component D) and Main Facility site (Preferred Alternative Project Component A). There are no stations for the Northeast Corridor in the Project area; commuters access the line at Newark Penn Station to the west and Secaucus Transfer Station to the east.

NJ TRANSIT's Morris & Essex Line borders the Main Facility site to the south. The Morris & Essex Line is also powered by electrical overhead catenary systems. The closest stations are Newark's Broad Street Station to the west and Hoboken Terminal to the east.

NJ TRANSIT's Main Line serves northern New Jersey, and stops at Secaucus Transfer Station before terminating at Hoboken Terminal. The Main Line is not located near the project site, as it lies north and east of the Project area. All trains on the Main Line use diesel-electric powered locomotives.

NJ TRANSIT's HBLR System travels north-south through Hudson County. This light-rail system is completely reliant on the commercial electric power grid for electrification and traction power.

10.3 PROBABLE IMPACTS OF THE PROJECT ALTERNATIVES

10.3.1 No Action Alternative

Under the No Action Alternative, the proposed Project would not be constructed and NJ TRANSIT and Amtrak would continue to be served by the existing commercial grid. Without the microgrid, commuter and intercity rail service in Amtrak's and NJ TRANSIT's core service territory would remain vulnerable to power outages. Under the No Action Alternative, other planned and programmed transportation improvements for which commitment and financing have been identified would take place by 2021. These include projects in NJ TRANSIT's Resilience Program, Amtrak initiatives that will affect operations on the Northeast Corridor, and HCIA plans for warehousing development on portions of the Koppers Koke property.

In the absence of the proposed Project, Amtrak has plans to completely replace and rebuild Substation No. 41 at a future and undetermined date pending funding. Amtrak is currently proceeding with reconstruction of certain elements of Substation No. 42, located east of the project area at the entrance to the North River Tunnels in Weehawken, NJ, including the installation of a new Control House. Under the No Action Alternative, NJ TRANSIT intends to acquire the 20-acre parcel (Preferred Alternative Project Component A) on the Koppers Koke property as well as the six-acre parcel (Preferred Alternative Project Component B) located south of the Morris & Essex Line (due to a property settlement, as described in Chapter 2, "Project Alternatives"). Under the No Action Alternative, the 20-acre parcel that NJ TRANSIT is acquiring would likely either remain vacant or be used for ancillary railroad purposes.

As discussed in Chapter 1, "Purpose and Need," previous major weather events have had direct impacts to the commercial power grid in the project area, resulting in power outages to millions of utility customers for multiple days following each major weather event. The public transportation infrastructure that connects Manhattan with northern New Jersey was severely affected in each of these cases. During these widespread power outages, NJ TRANSIT services that were impacted included NJ TRANSIT's light rail, bus service and commuter rail, as well as ferry facilities in the region. Without the proposed Project, commuters that use the commuter and light rail systems (an estimated 143,000 daily customers that make up the total rail-based market in the service territory, and an average of just under 52,000 daily riders that also utilize the HBLR) would continue to be at risk of being stranded or delayed during future widespread commercial power grid outages, since other transportation infrastructure (e.g., buses, ferries, and highways) is already operating at capacity.

NJ TRANSIT maintains a Comprehensive Emergency Management Plan (CEMP) and a series of Emergency Operations Annexes for its business lines and departments in the event a severe storm is imminent in the

region. The CEMP and its annexes focus on operationally preventative losses and provide no guarantee that critical functions will be operational during or after a severe weather event. The plan includes procedures for scaling service down in the days leading to a severe weather event, when advance notice and predictions of such an event are available. Under the No Action Alternative, NJ TRANSIT will continue to implement the practices outlined in the CEMP in order to ensure life safety, provide for life support and incident assessment, and restore NJ TRANSIT operations to limit community impacts and economic disruptions. (NJ TRANSIT 2014)

Under the No Action Alternative, HCIA's proposed re-development of a portion of the Koppers Coke Peninsula with four high-cube warehouse buildings and one high-cube warehouse building on the adjoining redevelopment parcel would take place by 2021. The additional warehouse buildings will generate approximately 426 new trips (302 enter, 124 exit) during the weekday morning peak hour and 487 new trips (179 enter, 308 exit) during the weekday evening peak hour. Based upon the results of HCIA's analyses (Langan 2016), the proposed warehouse development is expected to have no significant impact on area traffic operations during peak hours. An access permit from NJDOT will be required by the developer for the proposed Route 7 driveway.

10.3.2 Build Alternative

Traffic

The Main Facility site would be operated by relatively few employees on a daily basis (approximately 10 per shift). Therefore, a shift change would generate a maximum of 20 trips per hour entering and exiting the facility. These trips would typically occur during off-peak hours as shift changes are likely to be at 6 AM, 2 PM and 10 PM. Deliveries to the facility would be minimal, with approximately 7 to 10 truck trips per week. Current access to the Main Facility is via Fish House Road and passage beneath the Morris & Essex Line via a confined concrete box culvert, which restricts the height and width of vehicles that can enter the site. Depending on the timing of the other development within the Redevelopment Area, the frontage road and Route 7 access point improvements may or may not be in place when construction for the Build Alternative is proposed to begin. In the event that the access improvements are delayed, NJ TRANSIT has proposed a driveway for access to the Main Facility site. The driveway would be connected to westbound lanes of Route 7 and would provide access along the southwest boundary of the Koppers Koke site to the Main Facility footprint.

The only Project Component that would result in a permanent minor increase in traffic is the Main Facility, due to approximately 30 new jobs being created, once in operation. All of project ingress and egress points will not change in terms of employee or public accessibility and therefore traffic fluctuations are not expected.

In N.J.A.C. § 16:47-1.1 (2014), NJDOT defines a "significant increase in traffic" as 100 movements during the peak hour and 10 percent of the daily movements on study area roadways. Therefore, the Project attributable anticipated traffic impact on the surrounding roadway network is characterized as minimal since very few trips would occur during peak hours and the daily site activity would be well below 10 percent of the average daily traffic of Route 7 and other study area roadways. With or without the

warehouse development that is being contemplated for the Redevelopment Area, the traffic associated with the Main Facility site would be easily accommodated into the traffic network with little noticeable effect.

During emergency conditions (e.g., commercial power grid outage), the functionality of the HBLR and other rail operations would continue. However, for at-grade roadway crossings, the roadway controls would lack power, so NJ TRANSIT police and local municipal police would direct traffic to maintain public safety.

Public Transportation

The electrical lines would connect and power Amtrak and NJ TRANSIT substations. During a commercial power grid outage, the microgrid would improve public transportation, by providing a resilient power source to operate commuter and intercity rail service. The Build Alternative would ensure continuing operations for NJ TRANSIT rail and limited Amtrak services that operate in the core service territory during a power outage. As discussed in Chapter 2, “Project Alternatives,” the following services would be available during a commercial power outage:

- Limited commuter rail service on Amtrak’s Northeast Corridor between New York Penn Station and County Yard/Jersey Avenue Station in New Brunswick;
- Limited NJ TRANSIT commuter rail service between Hoboken Terminal and Millburn Station on the Morris & Essex Line; and
- Service on NJ TRANSIT’s HBLR between Tonnelle Avenue in Norther Bergen and 8th Street in Bayonne.

The proposed Project would enhance reliability in the service area and allow NJ TRANSIT to restore service quickly after a major event that causes a power outage of the commercial grid. This would reduce strandings and delays to the daily commuters during power outages and reduce the additional strain on other transportation infrastructure (e.g., buses, ferries, and highways). The proposed Project would also help to alleviate increased vehicular traffic resulting from emergency situations (evacuations, recovery operations) where the commercial power grid is affected.

Consultation with the Federal Aviation Administration (FAA) was conducted as discussed in Chapter 21, “Agency Coordination and Public Participation” (also see Appendix D, “Agency Correspondence”). FAA did request that NJ TRANSIT complete FAA’s online Notice Criteria Tool prior to commencement of construction since the proposed Project is in the vicinity of Newark Liberty International Airport. The proposed monopoles will be reviewed by FAA’s Obstruction Evaluation process. Since the proposed monopole heights are shorter than other existing infrastructure in the project area, the proposed Project would not create a new obstacle nor have an impact on air traffic. Monopoles will be approved by and registered with FAA prior to construction and will include FAA designated lighting if required.

10.4 SUMMARY OF SIGNIFICANT ADVERSE IMPACTS AND MITIGATION MEASURES

Under normal operating conditions, there would be no impact (adverse or favorable) to vehicular traffic conditions or to the customers of the public transportation system in the project area. No significant changes in traffic patterns would occur. Since the Build Alternative will provide resilient electric power to Amtrak and NJ TRANSIT rail lines, including during emergency conditions that disrupt the commercial power grid, both vehicular traffic conditions and the public transportation system would realize positive impacts. Any loss of rail service during widespread power outages currently results in increased vehicular traffic in an already congested region. With implementation of the Build Alternative, these consequences would be lessened as emergency and limited rail service would be available in the region during a commercial electric power grid outage. In summary, the Build Alternative would not result in significant adverse impacts to traffic or public transportation. Instead, it would fortify public transportation in the region. As a result, mitigation measures for the Build Alternative are not required.